

Inclusive Education

Perceptions, Practice and Policy

A survey study: Students experiences and stakeholders perceptions of the practice of education policy for inclusion of students with special needs in Higher Education

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Abstract

To expand knowledge on the practices and experiences derived from policies towards inclusion of students with special needs in higher education, the study compared stakeholders and student perceptions of practicing inclusion in a higher education institution in Mexico. A survey design with an on-line questionnaire as main data collection instrument was administrated to a proportional stratified random sample of 126 persons of the university community. Results revealed that although inclusive policy is present at the institution it is partially implemented in several of the inclusive education dimensions. Analysis of the data indicates that the institution is in a pre-competence state for inclusion. Therefore the present study recommends specific areas as priorities for the improvement of the institutional practices towards inclusion. The higher education institution that occupied us is in the right path; nevertheless it still has a long way to go to enhance the inclusion of students with special needs.

Key words: perceptions, experiences, policy and practice, inclusive education in higher education, competence for inclusion.

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Dedication

A El creador de mundos

A mis padres:

Rosalía Monroy López y Jesús Antonio Chagoya Arzate

A mi hermano.

A Lenus y Rosi.

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Foreword

If ‘*the act of coming to know something involves a personal transformation...*’ Where ‘*...The knower and the known are indissolubly linked and changed in a fundamental way*’ (Peat, 1996). Then *Inclusive Education* is much more than a set of policy related practices or a field of study, it is not just a way of thinking or a life style modern philosophy. Inclusive education is more about practicing the art of sharing this universe, its knowledge and our experiences with each other. Let this work to contribute to do so.

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1 INTRODUCTION

1.1 The topic

This investigation is mainly conducted in order to gather data to provide knowledge about the perceptions of the current state of inclusive education in a public higher education institution, and secondly to provide knowledge about the experiences of students, academic and administrative personnel, about inclusive education practices derived from policies fomenting inclusive education in higher education. Hence this is a survey study to investigate inclusive education in a higher education institution. The survey will be conducted at The National Autonomous University of Mexico (UNAM).

1.2 Background

There is an international consensus that the education system plays a vital role in fostering respect, participation, equality and non-discrimination in our societies (Office of the United Nations High Commissioner for Human Rights & United Nations for Human Rights Educational, Scientific and Cultural Organization, 2006). Therefore is highly relevant for a developing country like Mexico to have a functional non-discriminatory policy successfully implemented at all levels of the education sector. Unfortunately and because of historical reasons the gap in the access to services provided by the state -education, healthcare, security etc.- between urban and rural areas, between the richest and the poorest of the country, between the indigenous population, the *mestizo* and those with European descent, has been somehow constantly widening, having as a consequence the exclusion of the most vulnerable groups of a modern developing society, where minorities of a kind -ethnic, linguistic, religious, people with special needs or disabilities, women etc.- are the first to be marginalized due the lack of representativeness in the power spheres where decisions are taken (Nación Multicultural, 2004). Public policy stressing a non-discriminatory approach has becoming a worldwide major trend in democratized nations (López-Segrera, 2010). Therefore the role of the modern state in the education sector is a determinant changing force when policy making -from developed countries to developing ones, from primary to tertiary education- in order to better cope with the challenge of providing education to a wider range of population -with disabilities and without- at the lowest possible cost without undermining

the quality. Hence there is necessity of dynamism in the public sector to shape and-reshape education Institutions and National behaviors. Education systems are on the urgency to adapt their educational practices and settings towards an inclusive environment as much as their own institutional capabilities allowed them in order to achieve change- thru modifications in the laws, norms and regulations.

By all the above mentioned factors the higher education institutions in Mexico are condemned to play a more active and visible role in the modern configuration of society. Therefore is not surprise that institutions like the UNAM-matter of this study-are seeking for adaptation in a global context. One of the most remarkable changes is the one leading to non-discriminatory practices in the education environment, as an effort to grant equal access to all individuals along with the maximization of limited economic resources. It is here, in this scenario, where the concept “inclusive education” is becoming relevant for our study of the state of inclusive education in a Mexican higher education institution like the National Autonomous University of Mexico (UNAM). The agreements and treaties signed by Mexico such as the Salamanca statement in 1992 or the Universal Declaration on Cultural Diversity in 2001- make it urgent to have available data on educational issues like the special needs or inclusive education in tertiary education, which with solid basis and a long, medium and short term vision may build the framework that can favor an integral agreement, including not only the financial aspect but the educational one so as to warrant sustainable development for the nation along with diversity and equal access to education.

Nowadays we know that the development of modern urbanized human societies is conditioned by the success or failure in the coordination and implementation of public policies. In the education sector this is comparable thanks to studies carried out by institutions like: UNICEF, ODCE and the World Bank. Nevertheless, the developing countries, like Mexico, are facing additional difficulties for the instrumentation and coordination of international agreements in the form of public policies, resulting in an imbalance in economic relationships, the lack of full implementation and application of the rule of law, a non homogeneous academic quality level and almost null access to special needs students (National Council to Prevent Discrimination, 2011) because of an inadequate instrumentation of educational policies relevant to the local problematic while linked to regional and global perspectives, provoking a hard to break vicious circle. Therefore the need to look out for and

identify the problems caused by this deficient coordination of public policies in the place of instrumentation -institutional level- in order to provide solutions in accordance with the specific needs of each community and specific social group- students with disabilities and special needs- matter of our study.

If we consider the modern world dynamics of constant change with an ever growing demand for satisfying the necessities of education for the most of people with the less possible cost due shortage of resources, human and material; Inclusive education then seems one of the better ways of adaptation in pro of the education system and the user itself. All those issues upraised and drive my interest to make a study about the state of the inclusive education in a higher education institution by looking at the institutional behavior derived from international and national policy from the Mexican state towards inclusiveness in education and how such policies are reflected in a Public Higher Education Institution, and as an attempt to know to what extent are this policies effectively implemented or not in the day a day life by applying a survey to the final users and to the internal education service providers at the educative environment. The Mexican Public Higher Education Institution to be studied is The National Autonomous University of Mexico (UNAM); therefore this survey research was directed to the students with and without special needs, academic personnel and administrative staff in order to know their thoughts, of such institutional behavior towards inclusion by-product of policy implementation in the university. I strongly believe that in order to improve the condition of inclusive education in the Mexican context is vital to know the current state of affairs of inclusion at institutional level on a case by case basis. Hence these research was conducted to gather data about the situation of inclusive education in a the UNAM in order to better understand the dynamics of the institutional behavior of Universities when implementing policies towards inclusion in education and the response of the students and personnel about the subject of the studied matter.

1.3 Research questions

Main research question: *What are the students experiences and stakeholders perception of practicing the educational policy towards inclusion in higher education at UNAM in Mexico?*

Sub-question:

1. What are the stakeholders' perceptions of practicing education policy for inclusion for students with special needs in Higher Education?
2. What are the student experiences of practicing inclusion in Higher Education?

The answer of the before mentioned question and sub-question provided a valuable insight in order to better understand the dynamics of institutional behavior related to inclusive policies in tertiary education along with a highly valuable insight view- from students and personnel academic and non-academic-for the improvement of such inclusive practices. By having the understanding that institutional behavior is

“that behavior which we observe individuals in a field of institutional relationships to be performing, when we, as observers, give up the implicit, purposive approach by which this field and the individuals within it were selected, and regard the individuals themselves as the unique, explicit, and independent objects of our investigation.” (Allport, 1933, p 28).

1.4 **Outline of the thesis**

This thesis is structured as follows: Chapter 1 gives a general introduction to the study of inclusive education in a higher education institution in Mexico, while defining the topic, background and research questions along with the structure of the project. Secondly is about the principles of inclusive education, the rights towards inclusion, the possibilities to participate and belonging to a learning society by discussing their principles in general. Chapter 2 refers to inclusion, universal design, mobility and accessibility. Chapter 3 is about inclusion in Mexican higher education along with the history of the National Autonomous University of Mexico (UNAM), and the relevance of inclusive education as a globalization trend. In chapter 4 will be having the presentation of the methodology and research design, including the survey design, the sampling strategy, the data collection framework the questionnaire and its implementation, the ethics, validity and reliability of the study. Chapter 5 is about the presentation of analyzed data. Chapter 6 contains the summary and conclusions of the study, implications for the future and the limitations of the study. Finally the References and Appendices section set an end to the study.

1.5 The principles of inclusive education:

Inclusive education in higher education is a recently new field of knowledge that has been traditionally overshadowed by the discussion of inclusive education policies and practices as a social right at primary and secondary levels. Nevertheless the reality is that for those students with special needs that manage to succeed their primary and secondary levels, the education systems must be prepared to receive them and their ever growing demand for education at tertiary levels. As those increasing numbers of students with special needs are going to still having their right for education, and denying them the opportunity of social inclusion can originate social fragmentation and more marginalization. According to Skrtic and Ware due structural implications of inclusive education, it is necessary to change the ways in which the work in educative institutions is divided and coordinated among professionals (as cited in Ware, 1995, 127). There has been a historical separation between what we called general education and special education and the academic oligarchy because of the structural isolation of professorate in disciplines. Therefore the lack of a proper collaboration between the teachers and special educators has been recognized as a key barrier to improved the delivery of services in a mainstream context (Phillips and McCulloch, 1990; Pugach and Johnson, 1989. Weson, 1990; Ysseldyke, Thurlow, Wortuba, and Nania, 1990 as cited in Ware, 1995, p127).

Inclusive education is a broad term used firstly in the United States of America created in the late 80's during the restructuring of special education in order to permit the most of the students with special needs to be integrated in what nowadays we call mainstream classrooms at schools (Ware, 1995). The introduction of such term emphasize a paradigmatic shift in the education practices from special education-a form of segregated education - to inclusive education, which is to be constructed around the mainstream curriculum, teaching methods and teachers as part of a collective effort (Wood and Shears, 1986; Murray, 1991; Porter, 1991). Nevertheless is not until the introduction of the United Nations constitutional concept of equalization of opportunities for individual with disabilities (UN, 1994) when the inclusive policies and practices in education started to be spread all over the world from developed member countries to developing ones, having a *momentum* during a pair of conferences promoted by the international community under the umbrella of the United Nations, one in Thailand in the year 1990 which promoted the idea of "education for all", and later on a UNESCO conference in Salamanca, which produced as an outcome The Salamanca

Statement as the frontline international document that pushed forward the idea of schools with an inclusive oriented education setting as the engine to improve the efficiency and the cost-effectiveness of national education systems (Buli-Holmberg & Sujathamalini, 2009) . It is important to mention that in such conferences Mexico was an active member of the international community, participating and signing the achieved agreements in favor of inclusion in education.

Inclusive education according to some specialized literature (Clark, Dyson, Millward, 1995; Buli-Holmberg & Sujathamalini, 2009) comprises several dimensions, such as organizational, teacher development, resources, pedagogical and curricular, values and policy related aspects. Therefore inclusive education can be also studied or analyzed in its several dimensions, and further more we can say that inclusive education can be effectively or not effectively implemented in one or several dimensions at a time, such as:

The policy dimension involves national and local policies along with international policies which affect the former, and its relation with practice in the learning environment at classroom and at institutional level.

The organizational dimension which refer to the learning institution characteristics that enable them to respond to diversity.

The teacher development dimension is about the competence of teachers to respond positively towards diversities in the classroom or learning environment.

The resources dimension deals on how human and material resources can be managed to promote inclusion.

The pedagogical and curricular dimension, focus with the teaching delivery methods and plan of studies design.

The values dimension which can be seen as a philosophical approach towards human rights, non-discriminatory practices and the uses of concepts and language towards diversity.

Inclusive education by its own means and merits is becoming more than an educational approach or a anti-discriminatory trend but also something very close to a field of study on itself and a multidisciplinary one, while using concepts and theories emerging from different fields and disciplines of the human knowledge spectrum.

For the purpose of this study I will stick with this six dimensions previously enounced as a framework in order to identified the institutional behavior of the National Autonomous University of Mexico (UNAM) towards inclusive education along with the Bio-Ecological model theory developed by Bronfenbrenner & Ceci (1994); this theory considers that the human development is intrinsically related to and within the context of the system of relationships that form his or her environment. The resultant is a constant a complex interaction between systems of environment, having a relevant effect on a human's development. Hence the environment is clue in the learners' development of their capacities (Paquette & Ryan, 2001).Due the fact that inclusive education is directly related to the education environment , the interaction with the individual and its development, the practices towards inclusion and policies related are forces modeling the environment, so the development of the students.

1.6 Rights towards Inclusion

1.6.1 International policy towards inclusion

Since Mexico became a State member of the United Nations on 7 November 1945, has, in general, voted in favor of treaties related to rights for people with disabilities. A good example is The United Nations Standard Rules on the Equalization of Opportunities for Persons with Disabilities which was formally adopted by Mexico in 1995. The Inter-American Convention on the Elimination of all Forms of Discrimination Against Persons with Disabilities was ratified by Mexico on 6 December 2000 by the Mexican congress, and the ratification document was deposited on 25 January 2001. The law regulating the convention was published in Mexico on 12 March 2001. The Convention is currently enforced.

Mexico has also signed the International Labor Organization Convention 159 on the Vocational Rehabilitation and Employment of Disabled Persons. This convention was ratified by Mexico on 5 April 2001 and was officially published on 22 April 2002. At the 56th session

of the United Nations General Assembly, Mexico submitted a proposal targeted to the development of a comprehensive and integral international convention to promote and protect the rights and dignity of persons with disabilities. The proposal was welcome and adopted through resolution 56/168. The UN Convention on the Rights of Persons with Disabilities was the final product of such diplomatic efforts. Such convention is clearly related to inclusion, by opposing to discrimination of persons with disabilities, as we can infer from the Article 1 which establishes as purpose the following:

“The purpose of the present Convention is to promote, protect and ensure the full and equal enjoyment of all human rights and fundamental freedoms by all persons with disabilities, and to promote respect for their inherent dignity. Persons with disabilities include those who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others.” (1996, p.7)

The second article provides a valuable informative character as establishes the definitions of the main concepts from a non discriminatory perspective as we can read:

... Discrimination on the basis of disability" means any distinction, exclusion or restriction on the basis of disability which has the purpose or effect of impairing or nullifying the recognition, enjoyment or exercise, on an equal basis with others, of all human rights and fundamental freedoms in the political, economic, social, cultural, civil or any other field. It includes all forms of discrimination, including denial of reasonable accommodation; *"Reasonable accommodation"* means necessary and appropriate modification and adjustments not imposing a disproportionate or undue burden, where needed in a particular case, to ensure to persons with disabilities the enjoyment or exercise on an equal basis with others of all human rights and fundamental freedoms; *"Universal design"* means the design of products, environments, programmes and services to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design. “Universal design” shall not exclude assistive devices for particular groups of persons with disabilities where this is needed. (United Nations, 1996, p.7).

Other relevant aspect of such convention is the Third article which focus on the general principles leading the document by establishing that:

The principles of the present Convention shall be: Respect for inherent dignity, individual autonomy including the freedom to make one's own choices, and independence of persons; Non-discrimination; Full and effective participation and inclusion in society; Respect for difference and acceptance of persons with disabilities as part of human diversity and humanity; Equality of opportunity; Accessibility; Equality between men and women... (United Nations, 1996, p.7). Nevertheless is the article 24 the one that attracts especial attention to us as it is dedicated to the educative aspects of the rights of the people with disabilities providing a clear inclusive approach towards education in all levels as we can read in the following text:

Education. 1. States Parties recognize the right of persons with disabilities to education. With a view to realizing this right without discrimination and on the basis of equal opportunity, States Parties shall ensure an inclusive education system at all levels and lifelong learning directed to: The full development of human potential and sense of dignity and self-worth, and the strengthening of respect for human rights, fundamental freedoms and human diversity; The development by persons with disabilities of their personality, talents and creativity, as well as their mental and physical abilities, to their fullest potential; Enabling persons with disabilities to participate effectively in a free society. 2. In realizing this right, States Parties shall ensure that: Persons with disabilities are not excluded from the general education system on the basis of disability... In order to help ensure the realization of this right, States Parties shall take appropriate measures to employ teachers, including teachers with disabilities, who are qualified in sign language and/or Braille, and to train professionals and staff who work at all levels of education. Such training shall incorporate disability awareness and the use of appropriate augmentative and alternative modes, means and formats of communication, educational techniques and materials to support persons with disabilities. 5. States Parties shall ensure that persons with disabilities are able to access general tertiary education, vocational training, adult education and lifelong learning without discrimination and on an equal basis with others. To this end, States Parties shall ensure that reasonable accommodation is provided to persons with disabilities. (United Nations, 1996, p.18). Despite of all the signed and ratified international documents in favor of an non discriminatory approach in education, the most relevant international documents signed by Mexico for

inclusion in education are the following; Inter-American Convention on the Elimination of All Forms of Discrimination Against Persons with Disabilities. It was ratified by Mexico on 25 January 2001, Convention 159: Convention concerning vocational rehabilitation and employment (Disabled Persons) from 1983, the International Labor Organization. It was ratified by Mexico on April 5, 2001, Universal Declaration on Cultural Diversity in 2001, The Salamanca statement (1992) and Convention on the Rights of Persons with Disabilities (2006). Finally we will proceed to give a brief account of the conventions, recommendations and declarations related to inclusive practices, which Mexico as a sovereign state has adopted in modern times:

Conventions	Main features relevant to inclusive quality education
Convention against Discrimination in Education (1960)	Right of access to education and to quality of education.
International Covenant on Economic, Social and Cultural Rights (1966)	Right of everyone to access all levels of education, including technical and vocational education.
Convention on the Elimination of All Forms of Discrimination against Women (1979)	Elimination of discrimination against women in the field of education. Elimination of stereotyped concept of the roles of men and women by encouraging co-education, the revision of textbooks, school programmes and the adaptation of teaching methods.
Convention on the Rights of Persons with Disabilities (2006)	No exclusion from free and compulsory primary education, or from secondary education, on the basis of disability. Assurance of an inclusive education system at all levels and in lifelong learning.
Universal Declaration of Human Rights (1948)	Everyone has the right to education. Education shall be free, at least in the elementary and fundamental stages. Elementary education shall be compulsory.
Recommendation Against Discrimination in Education (1960)	Elimination of discrimination in Education, and also the adoption of measures aimed at promoting equality of opportunity and treatment in this field.
World Declaration on Education for All (1990)	Every person – child, youth and adult – shall be able to benefit from educational opportunities designed to meet their basic learning needs.

Table 1: The Policy Guidelines on inclusion in education. Taken and Modified from, UNESCO, 2009

1.6.2 From Integration to Inclusion.

According to Vislie (1995) in western countries integration can be understood from a historical perspective as a complexity of new attitudes, values and ways of thinking, from the exclusionary concepts of handicapped populations which our societies have been reacting towards them first by liquidation, and later by isolation and later on with the establishment of modern institutions in the nineteenth and twentieth century by segregating them. But is not until the arrival of the 1950s and 1960s that people and minority groups are became aware of segregation as a common practice in their own societies, forcing a shift in the terminology, looking at the segregation experience as a problem to be addressed and where integration became the response to such a problem. Having as an outcome the critique of the knowledge basis of the diagnostic of 'deviance' and 'disability', linked to the stigmatized segregating institutions which also were questioned by society and by consequence reformulated, shifting from paradigm, from an understanding of disability enrooted only on the natural science-medical approach- to disabilities also grounded in the social sciences-social approach. But it is not until one decade later in Western societies, that the concept integration as a belief system was strong enough to have an impact on the agenda-setting in mainstream nations. But in order to make integration could be able to reach the political level , several demands for change were on the necessity to pass many barriers such as the agenda-setting. If we understand integration as a political reform issue we must then understand that a variety of historical arrangements and compromises must be taking into account, including three basic elements, the history of the education system, the social policy system and the welfare state development (Vislie, 1995, p.44). Nevertheless is not until 1978 when the OECD and CERI (Centre for Educational Research and Innovation) crated the project, 'The Education of the Handicapped Adolescent' that integration became as the dominant policy issue related to organization of schooling for handicapped children in most of the member countries (OECD, 1981, p. 5). In this context, integration became in some aspects of education the leading force of educative reforms. With it a third shift of paradigm occurred in the international setting towards the understanding of disability, moving from the social approach to a human-right based approach.

Cerych and Sabatier (1986) explain the reform process as a three stages process. The first is a period of policy formulation: where weaknesses in the existing system are supposed to be admitted, followed by investigations, experiments and reports and concluded with a formal

political decision to implement a new programme or create new institutions. Where the second stage is concerned with the implementation of such political decision and the third stage dedicated to establish the implementation of such political decision in the ways of policy considering redefinitions and innovation if necessary.

By the end of 1970 most of the OECD member countries had signaled their commitment to integration as a policy objective leading to education reforms. These reforms depending on their own national context were having mainly two different positions towards such modifications in pro of integration: One with their main focus being put on special education, where the main concerns related to this approach were centered into the expansion of special education, along with reforms in the organization and delivery of such education. Under this perspective integration has been presented as ‘different forms or levels of integration’ ranging from special schools in one extreme, through special classes or units in ordinary schools, to mainstream classrooms in the other extreme. This model has been criticized as clear and helpful for organizing special education, nevertheless this very same model when presented as a model for integration; it has been considered confusing and generally rejected due inappropriate conceptualization of policy of integration (Hegarty and Pocklington, 1981, p. 15). On the other hand we have the educational reforms directed towards integration. They have their main focus on the general education system, where the main issues are those related to the reformation of ordinary or mainstream education, to make it more comprehensive. Hence integration policies in this model undertake a critical examination and a systematic attack on segregative practice of the general education system. Such process can be as diverse as the context, but it must be based on a search for diversity. The concepts of normality are challenged as well as the idea of ‘ordinary education’ and the traditional view of school failure due to ‘defective’ students (Skrtic, 1999).

The OECD had reported that there had been, and still ongoing, a trend towards ‘common’ and ‘comprehensive’ schools. Also a trend in favor of the education of pupils with handicaps in ordinary mainstream or ordinary schools was founded. Stating in the conclusions of the report that the integration of pupils with handicaps in ordinary schools was to great extent influenced by the way institutions were organized and that integration was far more successful in countries with common comprehensive schools (OECD, 1983, p. 23, p. 79).

Therefore there are two sets of different positions or strategies when referring to ‘integration’ policy reforms as we can infer from the reading of the previous paragraphs. In one hand the education policy reforms strategies which main focus is focus on special education and in the other hand those policy reforms strategies that are directed on the transformation of the main education system. For the purpose of this study we are focusing on the latter, as we are interested in the policy and practice towards inclusive education in a higher education institution which is part of the main education system. Inclusive education is an essential element of integration policy reforms in education, seeking the adaptation of the general education system in order to transform it, in a way that can be adequate, and prepared for diversity of students and their special needs.

1.7 Possibilities to Participate

According to the ‘*Human rights of the people with disability in Mesoamerica and the Dominican republic*’ Japan International Cooperation Agency (JICA) report from 2006, perceptions of work towards the people with disability have evolved in diverse models. Nevertheless three are considered to be the main models in order to describe the current practices toward people with disabilities. The present investigation considers them. These are those three main models:

The Traditional Model

The organic, functional and social margining of the disability runs through three stages:

A) People with disability subject to extermination. In modern times this stage is reflected in the legislations that allow abortion for reasons of disability or involuntary euthanasia for the same reasons. The objective of this stage is the social disappearance of people with disabilities.

B) People with disabilities are subject to segregation and isolation. The hospital system was the origin of the development of such philosophy. In the educational system differences in classrooms are evidenced or educational institutions totally segregated.

C) Persons as subjects of socio-sanitary prevention where the state assumes a position of social assistance and scientific investigation. People with disability are depositories of pity and charity and at the same time are objects of scientific investigation.

The biological model

This model is one of the manifestations of pure capitalism, where the value of a human being is based on productivity utilitarian-non-utilitarian binomial. In it the professionals (Physicians, educators, therapists, psychologists, social workers, sociologists, etc.) assume the power to decide and direct the lives of people with disabilities. Under the perception of pity, superiority, and mainly, protection they claim power over the disability population. People with disability are converted into a social problem seen vaguely in the environment as a determining factor that does not allow access to true equality of this population. The disability population assumes a position of insecurity, inferiority and pity towards themselves.

Model of Human Rights

Part of the paradigm of an independent life is the philosophy developed by the Movement of disabilities people where the problem of access to true equality is an Environment that discriminates and is violent towards the disability and people with disabilities are subjects of that right. This has important implications in the work with the disability population since it is the paradigm that allows acknowledgement, possession, and the full enjoyment of human rights. For the purpose of the present investigation the model of human rights is the one chosen to be used. The work under the model of human rights implies that the actions are guided by a series of values and principles that guide this model. These values are extracted from international instruments for the protection of human rights of people with disabilities. Judgment will be influenced by belief, attitudes, behaviors, dogmas, etc., that societies, communities or persons in an individual. In the moral realm, a value is true in function of its capacity to make men and women more human. The legal instruments for protection of the human rights of people with disability, the international treaties and internal legislation thus have comprehended and established a series of principles that guide the application and interpretation of these legal instruments, which, depending on the case are above the political constitution, above the general law or on a level of equality with reference to the law. This implies, as the case that these principles are found acknowledged in juridical instruments, they are obligatory and imply enforcement in the case of non compliance.

Therefore, based on the before mentioned JICA report, we can say that the main principles and rights towards inclusion are: Non discrimination, Affirmative actions or corrective measures, Diversity, Equality of opportunity, No violence, Accessibility, Independent Life, Self Representation, Full participation in all life activities and last but not least Dissemination.

Non discrimination

This refers to the elimination of all distinction, exclusion, or restriction based on sex, age, sexual preference, disability, religion, etc., that has as its object or result the diminish, or annul the acknowledgement, possession, and the exercise of human rights and fundamental liberties. Discrimination is configured in two situations a) treat differently that which is equal: as in the case of two persons that opt for the same position with equality of qualifications but one is disqualified for a disability or b) treat equal that which is different.

The American treaty for the elimination of all forms of discrimination against persons with disability established in its article 1, section 2 the principle of non discrimination in the following way:

The term discrimination against people with a disability signifies all distinction, exclusion or restriction based on a disability, antecedent of disability, consequence or previous disability, or perception of a present or past disability, that has as an effect or purpose to impede or annul the acknowledgement, possession, on the part of people with disability, their human rights and fundamental liberties.

Affirmative actions or corrective measures

IN section 2 of article 1, the Inter -American Convention for the Elimination of all Forms of Discrimination against People with Disabilities establishes the following corrective measures:

Discrimination is not constituted by distinction or preference adopted by a State with an end to promote social integration or personal development of people with disabilities, only when that distinction or preference does not limit in itself the right to equality people with disabilities and those individuals with disability are not seen to be obligated to accept such distinction or preference. (OAS, 1999).

This before mentioned article establishes the measures that seek to correct the social distortions established by the relation of power, in a society, that does not allow participation in conditions of equality of all human beings, which also includes the students with special needs. These corrective measures are in two modules: those that eliminate privileges as is the case of political, educational, work, quotas etc, which establishes as minimums and are of temporary nature, and those measures which include incentives to correct the inequalities, as in the case of physical advantages.

Diversity

All are equally different. This principle purports to break the established paradigms of the human being, or in these case people with disabilities. Socially the population of the disability has been seen as those who use a wheel chare, and made invisible the other social groups that comprise this community. This has brought as a consequence that their interests, desires, and rights are not as evident, and that, in many cases, they are ignored.

The principle of diversity seeks to show that differences are evident in human beings according to their age, gender, ethnicity, religion, economic condition, geographic situation, disability, etc. The disability population is found in social diversity in a spontaneous way, hence we can agree that is an inherent part of society. Therefore denying their existence would be an unacceptable attitude and a denial of their human-rights.

Equality of opportunity

Equality is a term that has been becoming constructed socially. First it was that that with the fact of establishing equality formally it was sufficient. The political constitutions, international treaties, and laws establishing it, have created a fiction that in many occasions distance persons from the reality and cause a belief that they truly enjoy quality. But this is not certain, since, when it passes from formality to reality we are made aware that it greatly distances itself from true enjoyment of equality. Laws establish equality in the access to education. But in practice the economic, cultural, political and social conditions generate inequality for educational access for all human beings. This principle is found in diverse instruments of protection of human rights, such as: The Universal Declaration of Human Rights, the Inter- American Convention of Human Rights and others, such as those international instruments of protection for human rights of people with disability.

No violence

This principle seeks the prevention, detection, sanction, and eradication of violence with an end towards assuring individual and social development of people with disabilities and their full participation in all spheres of life. Violence is felt to be equal to that of discrimination and is manifested in diverse levels and in different forms.

Structural violence is that which arises from social institutions, those that make invisible, ignore, and disqualify the own needs of the people with disabilities, and reinforce their roles and stereotypes that create discriminatory prejudices against the population. This structural violence is reflected and is manifest in familiar violence. People with disabilities suffer in the private environment the same violence that is inflicted by structures. Violence against the disability is manifested in physical, emotional, sexual, patrimonial violence and by negligence, in the private as well as in the public environment. This principle was clearly defined in the Inter- American Convention for the Prevention, Sanction, and Eradication of Violence against Women, where it was established as a human right, the right to live a life free of violence. Integrity and interdependence of the rights of people with disability, Human rights are inter-related. This implies that violation of one of these has repercussions on acknowledgement, possession of other human rights.

Accessibility

Refers to the existence of facilities so that all people can freely mobilize within the environment, make use of all the required services and have at their disposition all those resources that guarantee their security, mobility and communication.

Independent Life

This principal arises from the movement of people with disabilities, and implies that they can assume control of their destiny and make decisions in their lives. According to this principal, the problem is centered in the environment and not in persons with disabilities.

This principal is clearly established in the Inter-American Convention for the Elimination of all Forms of Discrimination Against People with Disabilities Article 4 section 2 b, in it is established that:

In order to accomplish the objectives of this Agreement, the party States pledge to: (...)b. the development of means and resources designed to facilitate or promote independent life, self sufficiency and total integration, in conditions of equality, to society of people with disabilities. (OAS, 1999)

Self Representation

This principle implies the development of citizen participation mechanisms in all instances. It is oriented against old paradigms and practices where others decide for the disability population. The fifth article of Inter-American Convention for the Elimination of all Forms of Discrimination. Against Disability Persons also establishes:

These party States will promote, in the manner however compatible with its respective national legislations, the participation of representatives of organizations of people with disabilities, non-governmental organizations that work in this field, or, if none said organizations exist, people with disabilities, in the elaboration, carrying out measures and policies for the application of the present Agreement. (OAS, 1999)

Full participation in all life activities

A relationship should exist between age and full participation of people with disabilities in all life activities. This implies participation in all the activities in accord with chronological age.

Dissemination

This contemplates the need to disseminate rights so that those subject to these are aware of its existence and their rights to demand them, and so that people are obligated to know their social commitment.

This last principal is found in the American Agreement for the Elimination of all Forms of Discrimination Against Disability People, article 3, section 2c: The sensitizing of the population through educational campaigns setting out to eliminate prejudices, stereotypes, and other attitudes that violate the right of persons to be equal, proportioning in this way the respect for living together with persons of disability. (OAS, 1999)

All these principles that are contained and summarized in the JICA report are the basic pillars that should guide policies, actions and relationships with the disability population. Hence their non-fulfillment implies a direct violation of their rights.

1.8 Belonging to a Learning Society

According to Wenger communities of practice are formed by people who engage in a process of collective learning in a shared domain of human endeavor, groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly” (Wenger, c. 2007). Therefore the university environment must be consider by its own inherent characteristics and attributes a community of practice. A community where sharing is the rule and not the exception to all of his members, where people not only learn, but share experiences and participate as members of a community. In the case of inclusion of people with special needs in higher education institutions can be studied from the perspective of building a community of practice towards inclusion.

The characteristics of the community of practice can be as diverse as learning opportunities are in the world. Despite that Wenger (c. 2007) provide us with three elements always present in a community of practice:

The domain 'It has an identity defined by a shared domain of interest. Membership therefore implies a commitment to the domain, and therefore a shared competence that distinguishes members from other people' (*ibid.*). *The community* 'In pursuing their interest in their domain, members engage in joint activities and discussions, help each other, and share information. They build relationships that enable them to learn from each other' (*ibid.*).

The practice. 'Members of a community of practice are practitioners. They develop a shared repertoire of resources: experiences, stories, tools, ways of addressing recurring problems—in short a shared practice. This takes time and sustained interaction' (*ibid.*).

As an example in a university the domain can be a study program, a field of study or discipline; the community can be a class, a research group, where the practice is a shared

activity related to their domain interests. It is important to notice that the practice is necessary to be a shared one. That is important to consider as inclusion in education has much to do with sharing knowledge, experiences and the environment with everyone without explicit exclusion depending on the needs of the members of the community. Therefore we can say that learning in higher education also involves participation in a community of practice. Such participation 'refers not just to local events of engagement in certain activities with certain people, but to a more encompassing process of being active participants in the *practices* of social communities and constructing *identities* in relation to these communities' (Wenger, 1999, p. 4) Here it is important to stress that in a learning community of practice is determinant to allow all the members of the community to have the chance to be active participants, and in the case of students with special needs in order to make them active participants an inclusive approach is needed. Another important aspect is the called *legitimate peripheral participation*. Wenger and Lave (1991) also considered that initially people have to join communities and learn at the periphery and as they become more competent they become more involved in the main processes of the particular community. They move from legitimate peripheral participation to into 'full participation' (Lave and Wenger 1991, p. 37). From this perspective learning is not only acquiring knowledge by individuals but shall be seen as a collective effort, a social process of participation. On his own words "Legitimate peripheral participation" provides a way to speak about the relations between newcomers and old-timers, and about activities, identities, artifacts, and communities of knowledge and practice. A person's intentions to learn are engaged and the meaning of learning is configured through the process of becoming a full participant in a socio-cultural practice. This social process, includes, indeed it subsumes, the learning of knowledgeable skills". (Lave and Wenger 1991, p. 29) And considering this is highly relevant that the students with special needs can be included in such process from the beginning, since they arrive as newcomers on the first semester of their higher education so later they can become full participants of the learning experience and community of practice. Other relevant element in constructing a community of practice in higher education is to acknowledge we are living in a dynamic world which changes in education sector are driven by several external and internal forces therefore adaptation is a must considering that 'learning as increasing participation in communities of practice concerns the whole person acting in the world' (Lave and Wenger 1991, p. 49). A place where learning is 'an evolving, continuously renewed set of relations' (ibid, p. 50). The concept of situated learning developed by Lave and Wenger

(1991) is an important learning approach which is clearly expressed by Mark Tennant (1997, p. 73) when stating that such concept of 'situatedness' involves people being full participants in the world and in generating meaning. Again the idea of being full participant is to be noticed. Supporting the previous thoughts McDermott (in Murphy 1999, p.17) stated that:

Learning traditionally gets measured as on the assumption that it is a possession of individuals that can be found inside their heads... [Here] learning is in the relationships between people. Learning is in the conditions that bring people together and organize a point of contact that allows for particular pieces of information to take on a relevance; without the points of contact, without the system of relevancies, there is not learning, and there is little memory. Learning does not belong to individual persons, but to the various conversations of which they are a part." Hence to make all the students to be part of a learning community that is also one of the key elements that inclusive education should look forward. (p.17)

Finally and in support of all the previous ideas Kerka thought about learning organizations 'learning is valuable, continuous, and most effective when shared and that every experience is an opportunity to learn' (1995). The most desirable characteristics of learning organization or community of practice are the following: Provide continuous learning opportunities. Use learning to reach their goals. Link individual performance with organizational performance. Foster inquiry and dialogue, making it safe for people to share openly and take risks. Embrace creative tension as a source of energy and renewal, and last but not least, embrace a continuously awareness of and interaction with their environment. (Kerka, 1995) All those elements or characteristics are highly relevant and necessary to take into account when implementing an inclusive education approach in higher education; so we can bring educational opportunities to all.

1.8.1 The instruction climate

Another relevant concept for the current research was the school or instruction climate concepts develop by Loukas (2007). Under the premise that the educational environments are as diverse as the number of them, the instruction climate can be an ideal place, friendly invited and encouraging for the learning experience or can be completely the opposite, unsafe, exclusionary and unwelcoming for the students and staff. Therefore the feelings and attitudes that are elicited by a school's environment are referred to as school climate(ibid.).

According to Loukas (2007) the concept of instruction or school climate is a multidimensional construction that includes physical, social, and academic dimensions.

The physical dimension: includes Appearance of the school building and its classrooms; School size and ratio of students to teachers in the classroom; Order and organization of classrooms in the school; Availability of resources; and Safety and comfort.

The social dimension: includes Quality of interpersonal relationships between and among students, teachers, and staff; Equitable and fair treatment of students by teachers and staff; Degree of competition and social comparison between students; and Degree to which students, teachers, and staff contribute to decision-making at the school.

The academic dimension: which includes Quality of instruction; Teacher expectations for student achievement; and monitoring of student progress and promptly reporting results to students and parents.

From all this previous enounced dimensions of the instruction climate only the first two- The physical dimension and the social dimension are to be considered as part of the data to be gather via a questionnaire , as our investigation has no direct interest in the academic dimension. In opposition we have a high interest in the physical and social dimensions of the university instruction climate related to inclusion in education.

1.8.2 Cultural Competence

According to Cross, T., Bazron, B., Dennis, K., and Isaacs, M. (1989), Cultural competence is defined as a set of congruent behaviors, attitudes, and policies that come together in a system, agency, or among professionals and enables that system, agency, or those professionals to work effectively in a cross cultural situations. They list five essential elements that contribute to an institution's or agency's ability to become more culturally competent. These include: 1. valuing diversity; 2. having the capacity for cultural self-assessment; 3. being conscious of the dynamics inherent when cultures interact; 4. having institutionalized cultural knowledge; and 5. having developed adaptations of service delivery reflecting an understanding of cultural diversity. These five elements should be manifested at every level of an organization, including policy making, administration, and

practice. Further, these elements should be reflected in the attitudes, structures, policies, and services of the organization. Finally we will provide a brief description of the different levels or stages of cultural competence.

Cultural Destructiveness - the dehumanization of specific cultures or individuals signifying an underlying bias toward the superiority of the dominant or majority group.

Cultural Incapacity – Is the inability to work with diverse populations.

Cultural Blindness - It is when the approaches used by and for the majority are perceived as relevant for all others. This level is characterized by procrastination to examine or even recognize existing biases in approaches to practices, education, and research that perpetuates the continued existence and development of models that support stereotypes of diverse populations and thus further promotes prejudice.

Cultural Pre-Competence – It is the recognition of potential weaknesses and biases within practices and a decision to take action to address the problem.

Cultural Competence – It is a demonstrated commitment to diverse populations in all aspects of the structure and functions of the organization. The commitment is characterized by a sustained, systematic integration and evaluation at all levels of significant collaboration from diverse populations into the infrastructure of the organization.

Cultural Proficiency – It is demonstrated by the centrality of an organization's commitment to diversity and by its external expertise, leadership, and proactive advocacy in promoting acceptance for diverse populations.

The previous enounced concepts were highly relevant for the data analysis section as they helped us to identify and classified the level of competence of the institution for inclusive practices in education.

2 Inclusion - Mobility –Universal Design

2.1 Inclusion from access to possibility

According to Gidley, Hampson, Wheeler & Bereded-Samuel:

‘Access, participation and success are shown to represent degrees of social inclusion underpinned by a nested spectrum of ideologies —neoliberalism, social justice and human potential, respectively — with human potential ideology offering the most embracing perspective’. Then ‘Social inclusion can be understood as pertaining to a nested schema regarding degrees of inclusion. The narrowest interpretation pertains to the neoliberal notion of social inclusion as access; a broader interpretation regards the social justice idea of social inclusion as participation or engagement; while the widest interpretation involves the human potential lens of social inclusion as success through empowerment’ (2010, 124 p.).

Therefore for an improvement of an education system and its parts is necessary to achieve a certain acceptable degree of social inclusion in order to widen the chances and opportunities in equity of terms for the population with special needs. The higher education institutions are not an exception. Hence when talking about social inclusion is important to have in mind from what ideological perspective this concept is used and implemented. Depending on the ideological perspective driving social inclusion can be classified in three main groups.

Neoliberal Ideology and access.

‘Social inclusion under a Neoliberal economic idea is the narrowest interpretation of social inclusion is linked to the ideology of neoliberalism. From the perspective of neoliberal ideologies, increasing social inclusion is about investing in human capital and improving the skills shortages for the primary purpose of economic growth as part of a nationalist agenda to build the nation’s economy in order to better perform in a competitive global market. In this theory the disadvantaged will eventually be included in global wealth distribution through

what is called the ‘trickle down effect’ (ibid, p. 132). It is a now-discredited theory of distribution which stands that the concentration of wealth in a few hands benefits the poor as the wealth necessarily trickles down to them, mainly through employment generated by the demand for personal services and as a result of investments made by the wealthy.

Another feature of the neoliberal approach to social inclusion is that it works from models of deficiency and limitations. Also from the neoliberal policy perspective social inclusion is related to increasing access to higher education for the primary purpose of increasing the national skills base and improving the economy. Access is about numbers and percentages and does not necessarily reflect student participation or success, nor does it reveal anything about the quality of the education that is accessed. (ibid. p.132).

Social Justice Ideology: Participation and engagement.

From the perspective of social justice ideologies, social inclusion is about human rights, egalitarianism of opportunity, human dignity and fairness for all. It may or may not be directed linked to economic interests, but its primary aim is to enable all human beings to participate fully in society with respect for their human dignity. This interpretation of social inclusion foregrounds notions of participation and engagement as key elements to achieve an acceptable inclusion level, where the individuals with special needs not only have access to the education system but they are participants with engagement. Tonks and Farr made an important distinction between ‘access’ and ‘participation’ when arguing that ‘access to HE’ is merely the starting point, claiming that: ‘certain groups within society are still significantly under-represented and disadvantaged at the level of participation’ (2003, Abstract). The social justice ideology can be considered as ‘another more critical set of notions that see inclusivity in educational contexts as concerned with successful participation which generates greater options for all people in education and beyond’ (Nunan et al., 2005, p.252).

Human Potential Ideology: empowerment and success

Considered to be ‘potentially the most inclusive and integrative interpretation of social inclusion is identified as human potential ideology. From this perspective, social inclusion asserts and goes beyond both economic equity/access and social justice notions of equal rights for all, to maximize the potential of each human being thus supporting broader cultural transformation (Gidley et al, 2010). A marked contrast identifiable between these theories driven by the human potential ideology and those neoliberal driven theory is that there is no

one ideal model of human development. Rather the notion of cultural and individual diversity is embraced whereby individuals are socially included as individuals which are part of a society bringing with them the asset of their very individual difference.

The welcoming of diversity is not an exception but a constant force of cohesion in the educative institution. As we can see is highly relevant to be aware under what kind of ideology or perspective the social inclusion is motivated in an educative environment. Depending on its ideological foundations the outcomes are going to be one way or another. Therefore every time an intervention towards inclusion is designed and implemented these perspectives must be taken into consideration. Is understandable that interventions towards inclusion in education which focus on the economic benefits of social inclusion are generally underpinned by neoliberal economic theory and rely on economic investment; interventions that focus on social justice tend to be grounded in sociology and/or critical social theory and involve social interventions along with theories of economic investment; interventions that focus on human potential tend to be grounded in positive psychology and pedagogy theories of human development, empowerment and transformation in which the emphasis is less on economic investment and more on psychological and spiritual values of generosity, community and gifting (Gidley et al. 2010).

Finally we must acknowledge that any of this previous described approaches are useful depending on the institutional or organizational issue to be tackle, nevertheless is important to find a righteous balance of this three perspectives in order to provide the better outcome for all: for the Students with special needs, for the Institutions and for the society itself. Granting access into a higher education institution is not just a matter of expanding the enrollment rates and selection criteria but a matter of providing a life changing experience through empowerment, self and social fulfillment.

2.2 Universal design

The universal design can be understood as the design of environments and other assistive devices that can be usable by all people, without the need for adaptations or specialized individualized design. It is targeted for people of all ages and abilities, looking forward to simplify the life of the users by considering a wide spectrum of possible needs. The universal

design as a concept emerged from the field of architecture by incorporating physical accessibility characteristics to the designs of buildings and spaces depending on their use and function. Later on architects realized that by considering and integrating a wide range of needs in the early design stage, they could produce universally designed products that are often easier to use and benefit people with and without disabilities (Orkwis and McClain, 1999). From an education perspective towards inclusion the universal design can be applied in order to make the school/instruction environment least restrictive.

The relevance of the universal design in education is due the fact that it comprises an essential part of one of two pillars in the teaching-learning process in one hand the environment principle and in the other the education principle (Buli-Holmberg & Sujathamalini, 2009). The environment principle which includes the architectural adaptations and the pedagogical vision for structural modification which mission is to make the educative environment accessible to all users independently of the diverse needs and abilities of the users. Nevertheless universal design is not just a matter of creating a free of barriers environment, it also has to do with a pedagogical vision for structural modification as a leading force of the architectural adaptations (Ibidem). In other words the pedagogical aspect is a balance counterforce of the architectural adaptations that should not be driven by only esthetic or budgetary or functional considerations, but always driven in the sake of the better development of the main users of the education environment, the students. The educational principle in universal design is focus on the delivery methods and techniques in one hand and in the organizational structure for the instruction of the users with special needs in the other. Both principles environment and education principles should be planned in concordance with the institutions, local and national curricular aspects.

The Center for Universal Design developed seven basic principles for the universal design of products and environments. It is important to make notice that these principles are not specific to education, but they have been used by education researchers and practitioners as a foundation for implementing universal design in an educational environment. These principles are the following: *Equitable Use* to ensure that designs are useful and marketable for people with diverse abilities; *Flexibility in Use* to accommodate a wide range of individual preferences and abilities; *Simple and Intuitive Use* so that products or environments are easy to understand; *Perceptible Information* such that information can be communicated

effectively regardless of the user's sensory or physical abilities; *Tolerance for Error* that minimizes the effects of accidents or unintended actions; *Low Physical Effort* so that products and environment can be used comfortably and with minimum fatigue; and *Size and Space for Approach and Use* to support access regardless of user's body size, posture, or mobility.

The model for inclusive practice in education developed by Buli-Holmberg & Sujathmalini (2009, p.27) parts from the seven principles traditionally used to described the universal design. Which are modified in order to make them applicable not only to the environment but also to the education principle previously described. The adapted principles of universal design for inclusive education are the following:

1. Equitable use. The design is useful for all people with diverse abilities. Teachers should make sure that they should not segregate or stigmatize any individual and the instruction should be equally available to all and it should be appealing to all users;
2. Flexibility in use. The universally design instruction should be flexible to accommodates a wide range of individual needs and abilities. It should provide choice in methods of use. The instruction should be provided according to the individual's pace of learning;
3. Simple and intuitive. The instruction should be designed without any complexity. The diverse learners learn better when the concepts are presented from simple to complex. Teachers should know their current ability level and provide effective prompting and feedback during and after task completion;
4. Perceptible information. The instruction should be designed using VAKT (Visual, auditory, kinesthetic, and Tactile) approach. Proper selection of background and legible presentation attract diverse learners;
5. Tolerance for error. The instruction should be designed with tolerance for error. Cautious preparation of most accessible and safe instructional set up minimizes hazards and the adverse consequences of accidental or unintended actions;

6. Low physical effort. The instruction should be designed in such way that it can be used efficiently and comfortably with a minimum of physical effort. In the case of children with diverse abilities should maintain a neutral body position and minimize sustained physical effort;

7. Size and space for approach and use. The universally designed instruction and materials should be presented with appropriate size and shape. It should provide adequate space for the use of assistive devices or personal assistance (ibid. p.27). .

As we can see universal design is a feature that must be taken into consideration when implementing inclusion in educational settings, not only from the environment perspective but also from the education perspective so the learners can benefit from it independently their very specific kind of necessities. In other word universal design in education should be at the disposal, suitable, dynamic and ready for diversity of the users.

2.3 Mobility and Accessibility

Mobility can be defined in several ways, as moving by changing position or location or by transferring from one place to another (WHO, 2001), or also as movement and degree of independence during such a movement in consideration (Peel *et al.* 2005). Nevertheless what is really important is the fact that mobility can improve social relationships and activities in the quality of life of persons. Outdoor mobility is can be understood to as the ability to move around —ambulant or using an assistive device, or by means of transportation— sufficiently to carry out activities outside the home. Therefore outdoor mobility could be seen as a prerequisite not only for obtaining essential commodities and consumer goods, but also for general societal participation (Mollenkopf *et al.* 2005) and in the case of higher education it is a prerequisite for education. According to Adhikari, Ross & John Ernst (2011), four general factors affect physical accessibility:

1. *Mobility*, that is, physical movement. Mobility can be provided by walking, cycling, public transit, ridesharing, taxi, automobiles, trucks and other modes.

2. *Mobility Substitutes*, such as telecommunications and delivery services. These can provide access to some types of goods and activities, particularly those involving information.
3. *Transportation System Connectivity*, which refers to the directness of links and the density of connections in path or road network.
4. *Land Use*, that is, the geographic distribution of activities and possible destinations. The dispersion of destination increases the amount of mobility needed to access goods, services and activities, reducing accessibility.

On the other hand accessibility as a concept can be seen from many dimensions and perspectives. Some common definitions are used in the environmental, planning, and architecture discourse referring to whether and how activities in society can be reached, the possibility of taking part in something desirable, and the geographic proximity in terms of distances and time (Iwarsson and Ståhl 2003). But accessibility is not a static concept and is not equal to all as it is directly related to the individual necessities. Hence accessibility can be expressed as a person-environment relationship. In other words, “accessibility is the encounter between the person’s or the group’s functional capacity and the design and demands of the physical environment,” and as such, it “refers to compliance with official norms and standards” (Iwarsson and Ståhl 2003, 61). It also can be defined as the potential for interaction and exchange (Hansen 1959; Engwicht 1993). In the case of education the interaction is with the community and the exchange is referred to the fact of acquiring knowledge and produce knowledge. One of the main goals of accessibility in education is to bring the users opportunities for learning. According to Litman (2011) Accessibility can be defined in terms of potential opportunities that could be reached or in terms of activity as opportunities that are reached. Finally accessibility and mobility are concepts closely related to each other, that must be addressed as a pillar for the effective inclusion of students with special needs related to mobility, so they can have effective mobility and access which lead to a wider spectrum of opportunities.

3 Inclusion in Mexican Education

The juridical norms have a hierarchy, never the less the overlapping of competences between laws is often an issue. In case of contradiction, the juridical system establishes adequate mechanisms that guarantee the order and logic of the same by the constitutionality of the laws. This system establishes a pyramid of hierarchy depending on the juridical system in question and can be classified in three categories (JICA, 2006): *The supra-constitutional system* which is that where international norms have supremacy over the Political Constitution. Then follow by the laws, regulations, etc. *The supra-legal system* is the international norm which is below the Political Constitution, and above the law, regulations, requirements, and other norms. *The legal system* is that the international norm is below the Political Constitution and has equal status of the law. The Mexican hierarchy of law can be group in the second category: the supra-legal system, as the international norm is restricted or lower ranked with respect to the national main law, which is the political constitution of the country. Therefore any international regulation in favor of the inclusion and against discrimination should not be contradictory and therefore in accordance of the national constitution. Here we present the most relevant national and international legislation for inclusion in the Mexican education.

3.1 Mexican Legislation towards Inclusion

The Constitution of the United States of Mexico guarantees equal protection of the law and recognizes a citizen's right to general welfare, including the right to employment, education, housing, and health care. These constitutional guarantees provide the basis for all welfare legislation safeguarding the rights of persons with disabilities. In August 2001, Section 1 of the Constitution was amended to specifically include people with disabilities. It should be noted that the word "disability" does not appear as such in this section, but that the phrase "different abilities" is used instead. The Decree approving the amendment which adds paragraphs two and three to section 4, and paragraph six to section 18, and a last paragraph to the third item of section 115 of the Political Constitution of the United Mexican States, sec. 1, Official Gazette of the Federation, 14 August 2001, 2. Section 1, paragraph 3, provides that: "Any discrimination by reason of ethnic or national origin, gender, ages, different abilities, social status, health conditions, religion, opinion, preferences, marital status or any other

reason, which may constitute a violation against human dignity and be intended to curtail or impair people's rights and freedoms is hereby forbidden.”

Recently, several state and federal laws have incorporated disability issues as have numerous codes, plans, agreements, programs, standards and guidelines. All are aimed at fostering respect for the rights of people with disabilities. Nevertheless the two most important Laws in the Mexican inclusion context are The General Education Law and the General Law for the inclusion of disabled persons. First the General Education Law was promulgated in 1993. This Federal Law not only recognized special education as a part of Basic Education but also recognizing the right of children for inclusion in education, a first step in the long way of bringing inclusive education to wider sectors of the population. By words of this law we can get closer to the spirit of it which was a breakthrough in the national legislation. “The Special Education is destined to individuals with temporary or permanent disabilities as well as those with outstanding aptitudes. It treats students in an appropriate manner according to their conditions and with social equity. For children with disabilities, education will support their inclusion into regular education through the application of methods, techniques and specific materials. For those individuals not able to be included in regular education classrooms, an educational program will be developed to respond to their individual learning needs. This will include the development of independent living and social skills supported by the use of programs and materials. This educational program includes orientation to parents and/or guardians as well as to teachers in basic education that receive students with special educational needs” (Article 41).

Second but not least the General Law for the inclusion of disabled persons enforced on the 27, May 2001. The main objective of this law is to protect and ensure the full exercise of the human rights and fundamental freedoms of persons with disabilities. This new law was designed to protect and ensure the full exercise of the basic human rights and freedoms of persons with disabilities by ensuring their full inclusion into society within a framework of respect, equality and equal opportunities; bringing the national legal framework into line with the Convention on the Rights of Persons with Disabilities, signed by the Mexican state on 30 March 2007, which came into effect on 3 May 2008. One of the key features of this law is the establishment of clear obligations for the authorities regarding the exercise of the rights of persons with disabilities in the area of health and social welfare, work and employment, education, accessibility and housing, public transport and communications, social

development, compilation of data and statistics, sports, recreation, culture and tourism, access to justice, freedom of expression and opinion and access to information. This law recognizes the right for inclusion in all education levels, nevertheless the also delimited the government responsibilities and obligations to guarantee and provide inclusive education only in the compulsory levels -primary and secondary - of education. Despite of this the law is also a breakthrough in the national legislation by providing a comprehensive legal framework for the social rights of the disabled, with inclusion as the leading force of the spirit of the law mirroring the contents of the international legal documents signed by Mexico. The accessibility and universal design are also key elements of the law.

3.2 University legislation

Among the regulations of the UNAM making mention or giving provisions for the matter of inclusion in education there are none. There is only one university norm making explicit reference to disability matters. That norm is the General regulations of the library and Information System of the UNAM. That norm specifies among their objectives ‘the extension of library services and information to users with disabilities’ on its Article 5, Item 7th. Finally we consider relevant to stress the fact that in the Administrative Norms of the UNAM, Students General Regulations of Admission of the UNAM (UNAM, 1973), on its first chapter titled First time Admission to secondary and post-secondary level, the criteria of admission of new students is regulated by two preconditions, one is that the selection of students is based on their level of academic training and the second criteria is related to the health condition of the candidates. Here the translated text of such norm, ”The National Autonomous University of Mexico select his students by taking into account the level of academic training and the health conditions of them”(UNAM, 1973). On July 2nd 2008 the Second Bi-national Meeting Mexico-Spain took place on the subject “Rights of Disabled University Students”. As a result of this meeting, the Bilateral Declaration of Yucatan on the Rights of Disabled University Students was drafted and signed by all attendants. This Declaration is based on the International Convention on the Rights of Disabled People and is adapted and focused on the specific situation of disabled University students.

This very few examples of the limited regulations in pro of inclusion in education at the university can give a partial description of the reality of inclusion in a higher education institution, never the less they can rise as indicators to be followed in order to better understand the behavior of higher education institutions.

3.3 Inclusion in Mexican Higher Education

Since the start of the H.E. activities in Mexico, the teaching and learning processes, curricular design and their implementation, played a fundamental role in modeling of the society that we know now as Mexico. The following text would be an attempt to describe this process along history in order to better understand the current situation of inclusive education at the UNAM.

“The history of a culture is the history of ideas going into action...” (Pound, 1970)

During the colonial period the function of professoriate was limited to two main-tasks:

Socialization of new generations of colonists into the culture and values of the overseas western Spanish culture. And, to provide the new establishment more qualified human resources, to deal with the disintegration and transformation of pre-Hispanic culture.

This had direct consequences in the teaching-learning processes. Moments where teaching in schools was obsessive, and repetitive, with the professor as ruler of the students, where most of the knowledge in class rooms was memorized, and complemented with tortuous reading-writing techniques implemented in the form of *silabarius* provided by the clerical academic oligarchy. The role of students was completely passive, and so his mechanic reading-writing skills where far beyond from letting them have a comprehensive approach to knowledge (See Kember, 2000). Attending to curricular aspects, the contents of study programs were copied from the European universities, but clearly oriented in a different way, due the evangelization process of the new colonies as a mean to reconfigure the beliefs and culture of the original Mexicans. At this stages the hard and soft, pure and applied sciences were treated both almost equally by the curriculum in the H.E. Institutions, and according to the structural models provided by S. Kyvik, Mexico was still joining a university-dominated system (2004).

The pedagogical practices, with rote-learning as main teaching-learning tool, were also common during and after the independence. But not was until arrival and victory of revolutionary movements, when a significant turn was given in the way the education was treated and oriented by the state. Hence during the post-revolutionary times, the function of

professoriate was reconsidered, and so the educative processes, locating teachers out of marginality, and re-locating them as one of the most important tools of change in the national context (1917-1930). Here as referred by Ma. Esther Aguirre, teachers were now considered as “missionary teachers”, “preachers of a new creed”, “lay priests”, heirs and spreaders of a new democratic public education, which in one way or another symbolically represented the presence of the state from cities to rural communities. The concepts of gratuity, lay education, state-control, and social renovation, appeared as a new common “belief” (Clark, 1983) in public institutions.

In general terms educative programs were rooted in four basic directions : the acquiescence and dominance of factors that preserve life and promote health care, the acquiescence and dominance of the physic-agrarian environment, the practical acquiescence of everything that raises and dignify domestic life, and the acquiescence and execution of anything that stimulate spiritual and material recreation. (Aguirre, 2003)) In this scenario reading-writing techniques have left behind the religious texts as main teaching support, and adapting their contents to the new National agenda requirements. Here again the student was never considered as an individual, and being used as a simple receiver of information in order to become a “citizen”, according to social necessities. The students were passive learners and educationalists active teachers. Nevertheless they were not professionals. The E.S. in Mexico was leading his efforts slowly to massification at least in the primary levels of education.

By the early 40s, in plain official presidentialism era, some important legislative reforms were made, motivating substantial changes in the configuration of the National E.S. Having as resultant the creation of two, -from my own point of view- contradictory institutions according to their specific nature, objectives and functions: “Secretary of Public Education” (SEP) and the National Union of Education Workers “(SNTE). Perhaps as an attempt to decentralized education without losing power of control over the professoriate, if we consider elementary school and higher education institutions as a fundamental part of the educative National structure. In spite of this, the teacher figure now is again reformulated at least in two main dimensions: as an active actor in the process of teaching and learning, considering teacher the transmitter of knowledge, and at the same time as an individual in the deepness of struggling forces of power where he could be the one in charge of some decisions, or just to be someone following specific curricular and extra-curricular orders. By this moment the consolidation of the “hegemonic educationalist state” was a reality. Due to structural

changes the H. E. S structural model could be considered as a dual one (Kyvik, 2004). But no for so long, because of future modifications in the H.E.S that were going to arrive in the next decades. In these years the H.E. curriculum was re-configured having as an outcome two main kinds of educative institutions at the top of the H.E.S.: the universities, in one hand and the technical institutes on the other. Each type of institutions had their own internal rules and regulations, but differently oriented in their disciplinary fields and approach to knowledge. In this scenario universities prevailed as humanist institutions, with an open predilection for the soft applied and pure disciplines, and the technical institutes being clearly oriented to the hard, pure and applied, spectrum of disciplines, with a functionalist way of teaching. Here again the students were just passive receivers of knowledge at Higher Education Institutions, mainly in the technical oriented institutions. Despite of this, in the next few decades the acquisition of consciousness of students, about the unequal educative-labor-market relationship, was becoming a reality. The awakening of the student body was going to be a big concern for the next public administrations.

The economic liberalism era was knocking at our door. And In the next three decades (70-2000) the H.E. S. and government policies were trying to deal not only with internal pressures as result of local social movements but with external ones, as consequence of the new world order. The state was now aware that dealing with major “structural reforms” in detriment of the social rights was not only unpopular but also a breeder of social riots. In the need of change due economic-international environment, the state tried to mangle this problem with short impact reforms from administration to administration, creating several kinds of technical colleges, technical institutes and schools in an effort to dis-concentrate the student population from the main public H. E. Institutions, and opening the educative market silently to private sector. Thus the National H.E.S, was on its way to massification, but confronting now a very complex institutional and administrative reality due the uprising number of actors or stake-holders involved (Clark,1983). then the H.E.S. was a fragmented one and from being a Single Public System: single sector, became a multiple sector. (See Clark’s work chapter). The impact on the teaching-learning processes was again perceived in the curricular treatment depending on the nature of the H.E. I.: Universities with a social oriented spectrum of disciplines, and Technical institutes with market related disciplines. In the firsts ones the humanistic way of teaching prevailed, but in the second the “mono-discipline” oriented education, had a great impact on the teaching techniques used by professors - sort of

behaviorist ways of teaching, and rote-learning kind of approach-; disconnecting the student from environment and letting them unable to realize about direct and indirect consequences of his acts as active members of society. Here again the collateral results of the reading-writing techniques applied on students from primary to upper levels of education, were visible, forming them as passive readers, consumers of thoughts, functional Analphabets, and making them to react consequently with rote-learning techniques and behaviorist-functionalist ways of teaching in all educative levels.

In the 90s the new international context- neoliberalism and globalization- leads Mexican government efforts to correct their policies due necessities of economic development. Here the National, H.E.S. was going -at least in the political speeches -to be an indispensable tool to achieve progress. Nevertheless is during this period when the state is trying to reduce the huge budgetary costs of the National Educational System, and at the same time to improve their performance by implementing the so called “Modernización Educativa” (educative modernization) which main target was to introduce and adapt the National E.S. into a new era, ruled by the market influences, and incorporating terms such as efficiency, competence, productivity and individualism. In consequence the Inter-institutional Committees for Evaluation of Higher Education Superior(CIEES) were created in order to promote the external inter-institutional evaluation of Higher Education Institutions, but professionalization of the academic staff was far away from been a reality. Despite of this, actualization of curriculums in all kind of educative institutions have been constant, and so, the gradually but slow introduction of ICT tools as part of the teaching-learning processes into the National E. S. Here again the student is a passive learner and reader, considered just as a sub-product of the social activities, and his role in society, to be determined by the market tendencies.

If we accept the assertion made by Thomas S. Popkewitz (2003),

“...I consider curriculum as a particular knowledge - historically formed- that inscribe rules and standards, which we use for ‘reasoning’ about the world and our ‘my-self’ as productive members in the same world. Despite of this, the rules of ‘saying the truth’ in the curriculum refers not only to the construction of objects destined for our scrutiny and observation. Curriculum is a disciplinary technology

that directs how individual is going to act, how he should feel, talk and 'see' the world and 'himself'. Thus, curriculum is a government practice.” (p. 149)

We can see the huge impact of Higher Education Institutions, study programs and their content, administrative orders and teaching techniques, have on students. For reasons obvious and not so obvious we may be able to extrapolate this analysis so that it applies to societies, having national or international consequences. This impact would be both positive and negative, strengthening some institutions and weakening others with resultant political and environmental repercussions. Mostly if the curriculum changes are guided by external influences, and the real impetus to change in the curriculum of higher education comes not from within the institution itself but from those who support their existence, the social and economic elite. It should come as no surprise therefore, that disciplines useful in the development of weapons systems are well funded when compared to the liberal arts, in main stream nations. In a state-orientated H.E. S. like that of Mexico, the faculty, administration, supporting institutions and staff, are influenced by those same external factors.

Nowadays we know that globalization is a set of processes “*which embodies a transformation in the spatial organization of social relations and transactions, generating transcontinental or interregional flows and networks of activity, interaction and power*” (Held et al., 1999). This set of processes has several faces not only tangible at macro-economic level but also at micro-economic level with the resultant of visible consequences all over the spectrum of human societal activities. These effects are also reflected and traceable in the behavior of higher education systems and institutions, ranging from a national context to an international one. As we know this so called globalization process involved several tangible and non yet tangible aspects, among the most visible we have are the economic and to some extent human flows, the creation, weakening and consolidation of social networks and a gradually increasing use of Information and Communication Technologies(ICT), the changing role of the nation state with deregulation, privatization and liberalization as main banners along with the convergence or divergence of policy adaptation and implementation and an increasing role of stakeholders in pro or against such changes. All this changes can be seen as threats or opportunities depending on the actors' current necessities. Hence as these necessities are going to be inflected and decided by the environment characteristics; the action or re-action of different participants in a globalized world will differ from case to case; producing several kinds of responses to a same problem and as consequence creating a non homogeneous

international environment. Never the less we can still find some common positive characteristics-like the spread of democratic values and anti-discriminatory practices with the goal of granting equal access to education along the tendency to offer universal coverage at primary, secondary and tertiary education- in the modern globalized world, where a growing role played by knowledge production and consumption is observed.

By all the above mentioned factors the higher education institutions are condemned to play a more active and visible role in the modern configuration of societies. Therefore is not surprise that the Higher Education Institutions are seeking for adaptation all around the world and not only in the so called developed countries but also in developing economies. One of the most important changes is the one leading to non-discriminatory practices in the education environment, as an effort to grant equal access to all individuals along with the maximization of limited economic resources. It is here, in this scenario, where the concept *inclusive education* is becoming relevant for our study of the state of inclusive education in a Mexican higher education institution like the UNAM.

Mexico since its beginnings as a modern nation has been a multicultural country with a wide range of ethnic groups and languages. Unfortunately and because of historical reasons the gap in the access to services provided by the state -education, healthcare etc.- between urban and rural areas, between the indigenous population and the *mestizo* population, between the richest and the poorest of the country has been somehow constantly widening, having as a consequence the exclusion of the most vulnerable groups of a modern developing society, where minorities of a kind -ethnic, linguistic, religious, people with special needs or disabilities, women etc.- are the first to be marginalized due the lack of representativeness in the power spheres where decisions are taken.

Despite this context is in the international arena-UNESCO and UN- due the spread of democratic values, as human rights, where substantial efforts have been made in order to prevent and suppress discriminatory practices in general and in the education environment in particular , by assimilating and implementing concepts such as *Inclusive education* and *intercultural education*, in multilateral declarations and agreements, signed by the participating states, Mexico included, such as the Salamanca statement in 1992 or the Universal Declaration on Cultural Diversity in 2001.

Even though the Mexican constitution itself prohibits discrimination of any kind (Mexican Government, 1917), including discrimination in the education sector, in the ground the anti-discriminatory policy in the form of *inclusive education* remains much as a mystery as there is not data available about it neither at national or at local level, which might lead us to think that such policies might remain much as a good intention or as a “*fantasy*” (Buli-Holmberg, Sujathamalini 2009) at institutional level.

3.4 The history of UNAM towards inclusion.

“In and round higher education, various groups press broad values upon the system. The claims come from all sides: business executives, union leaders, church officials, minority representatives, journalists and other stray observers, spokesmen for the family.” (Clark B., 1983, p. 24)

In order to better comprehend the modern state of the National Autonomous University of Mexico and its practices towards inclusion is necessary to consider their historical background as any change implemented in this institution can affect, due historical reasons, to a great extent the whole higher education public sector in Mexico.

The beginning: The foundation of “La Real y Pontificia Universidad de Mexico” (The Royal and Pontifical University of Mexico) in the fifteenth century marked the official start of Higher Education in that very country. Established by a royal mandate of The Spanish Crown and creating a legal basis for giving political support and sponsorship to this Royal Higher Education Institution since the 21st of September, year 1551, and copying their organic structure, constitution and bylaws from “La Universidad de Salamanca” and opening their classrooms on the 25th of January, year 1553 (Berumen, 2003). Later on -three centuries after- this will become La Universidad Nacional Autónoma de Mexico (The National Autonomous University of Mexico) Institution subject of our current study.

The Royal and Pontifical University of Mexico was created by necessities of an ever-growing cadre of qualified professionals in the occupied new world, and to hasten the destruction of the Indigenista culture. Perhaps we are observing one of the earliest examples of

“...internationalization” (Scott, 1988) in a Higher Education System (H.E.S) and even international mobility of the professoriate. But the Spanish Empire’s supremacy was not going to last forever so this process of “proto-internationalization” was abruptly cut with the forthcoming independence of Mexico.

During the colonial period, academic and administrative issues were ruled on by the catholic academic oligarchy, composed of royalist and their adversaries, both liberal and conservatives. (The independence of Mexico from the Spanish crown was headed by a priest). Hence, the monopoly of knowledge and state control was still in the hands of the monarchical-clerical power elites, which was, intern mixed up with other political groups, including Creole and Spanish. We must remember that it was the pope that presided at the Kings’ coronation and the vice-Roy by a representative of the pope, as an example of the hierarchical division of power (Clark’s, integration chapter, 1983). This exercise of this hierarchical division of power, however, occurred at a time when there was no efficient means of communication, i.e.; lack of administrative control. (The governors were so very far from the governed. An average letter/correspondence between Spain and the new world took several months (2 to 5 or more) to reach his destiny (Cruz B., 1998).

At that time the market was more or less controlled by the crown. But secular elites quickly took advantage of the weakness of administrative control, to establish their own institutions and to administrate their own affairs, with the resultant increase in the number of secular economic groupings, also competing for positions in the Institutions of Higher Learning Over the next three hundred years the number of universities in Mexico reached twenty-five, but by the year of 1825 had decreased 25 % as an indirect consequence of the independence process of 1821.(Berumen,2005) Even though clerical institutions, secular groups and new independent political administrations remained their vicious antique practices, monopoly of commerce, with a political structure as in the colonial age, only now made worst as they were free to do almost anything, in order to be able to carry favor from the dominant groups’ interests. Due to the vacuum left by Spanish ineffectual administration.

In the next three centuries the historical dimension of H.E. S. in Mexico is more than a simple list of isolated facts, but a complex relationship between different struggling forces and group interests playing a main role in their past and actual configuration (Clark, 1983). Becoming an issue of relevance if we consider that reality will always surpass the human

expectations, and the behavior shown by the Mexican E.S., follows the rule. Since pre-reform ages (1833) the efforts of the Mexican government to improve the performance and coverage of the E. S. were less than constant and ineffective, prevailing the clerical hegemony at the top of the structure in all the mayor educative institutions, but is not until the arrival of Benito Juarez as president of Mexico, that conditions for liberal reforms were set. In the year of 1867, those legal reforms contained as one of their main targets the formal division between the clerical and state life, having as a direct outcome the conformation of a lay public education and introducing the national E. S. into a new era of republican institutions with a secular state at the command of educative processes. But not was until the end of the revolutionary movement in Mexico (1917) that the creation of a new constitution social-oriented was possible, giving a new administrative structure and legal basis to the H.E.S. of Mexico in the form of three articles 3, 27, 123. (See Mexican Political Constitution of 1917). This law was the first milestone towards basic education access for all by considering the education as a right of the people and an obligation of the state in order to provide such education. In a comparative way two mayor changes in the higher education institutions were given -from a clerical dominated to a state dominated one- (Wittrock, 1993) from a conservative education to a state oriented education.

In the next three decades the E.S. in Mexico had a notable expansion. Nevertheless most of these efforts were related and focus to, primary level, with basic education considered as a public-good by the post-revolutionary governments. Despite of this, the creation of new H.E. Institutions was slowly increasing and efforts to encourage the autonomy of universities beginning. (Berumen, 2003) And by the year of 1929 the autonomy of the National University of Mexico was declared, as an effort to separate the academic life from political struggles. Even though the autonomy was gained by the National Autonomous University of Mexico (U.N.A.M), the public sector in the H.E.S. since then, has been constricted by restrictive budgetary policies coming from the governments in turn. By this historical moment the main ingredients of the national H.E.S. were almost fully integrated to model his present face in Mexico, not without considering some forthcoming changes that were going to arrive, in order to adapt the public H. E. S to “modern necessities”, internal and external, in the overcoming decades, as an effort to deal with the growing influence and challenges of an internationalized market and globalization, where the human rights, anti-discrimination laws and policies towards inclusion play a constant role as a changing force shaping the current configuration of the public universities in general and of the UNAM in particular.

4 Methodology Approach

4.1 Introduction

According to Bryman, (2008) a study design is a structure that guides the execution of a research method and the analysis of the subsequent data. Hence a study design can be understood as the frame work for data collection and analysis which enables systematic conduct of the study. Nevertheless It can also be considered as a procedural plan that is configured by the researcher to answer the question and sub-questions of his research validly, objectively and accurately (Kumar, 2005). The main purpose of educational research is to achieve new knowledge about the educational phenomena, and to develop our confidence that particular knowledge claims about educational phenomena as a result of the research, are true or false (Borg & Gall, 1989). From the perspective of quantitative research it is fundamental to collect evidence that supports or refutes the knowledge claims. By producing evidence in the form of objective observation of relevant phenomena in order to produce from the research data, enough evidence to test a knowledge claim. In education most quantitative research in education can be classified in two main types, descriptive studies and studies directed at discovering the causal relationships. Where the former are mainly concerned in finding out the “What is”, and the latter –the causal comparative method, is aimed at digging out the possible causes for the studied phenomenon by making comparison between subjects and explore causal relationships, but not necessarily confirm them (Borg & Gall, 1989). Therefore for the purpose of this study a quantitative approach is the one to be used. Depending on the type of educational quantitative research to be conducted the methods to be used to gather the data must be chosen. And if we considered that the survey research is a method of systematic data collection created to obtain standardized information from the subjects in the sample, and the information gathered by the survey instrument is quantifiable so it can be analyzed and reported quantitatively (Borg & Gall, 1989); in order to meet the goals of the present study, a cross-sectional survey design was implemented. Due the fact that in the cross-sectional survey, standardized data is to be collected from a sample drawn from a specific population at one point in the time. In the case of this study the population to be studied is the students, students with special needs, administrative and academic personnel at a higher education institution.

4.1.1 Survey Design

The survey design is widely used in educational research and is convenient when the researcher wants to answer questions of what things are like and not why they are this or that way (Vaus, 2002). While allowing to explore the relationships between the variables to be used in our current study to provide an accurate as possible description of the studied matter, along with the generation of opinions, competencies, attitudes and suggestions for the improvement of a the current studied phenomenon (Gall, Gall & Borg 2007). Among the main reasons why the cross-sectional design and survey research with questionnaires applied on-line were chosen as the most adequate means to achieved the research data in this study we can enunciate that the size of the population in all groups and subgroups considered for this study is rather large, therefore questioning all pretended respondents separately would have been difficult and unrealistic due time, logistical and budgetary limitations. If we consider Gall and Borg, when stating that “*one of the main advantages of questionnaires is that time required to collect the data is typically much less*” (p. 229). Another reason was that the questionnaires are a flexible research tool, that can be adjusted depending on the necessity of the research population and strata. In our case we decide to create a common template of items specially design for the current research, and a subset of strata targeted question in order to independently their differences in the constituency of specific items, which allowed us to make a inferences of a group in some cases and comparison between the groups and subgroups of the population in other, as the structured data gathered with quantitative survey techniques give us the freedom to observe similarities and differences between the groups and subgroups of the population. Considering the asserts of Vaus about the range of research methods and techniques of data collection, at our disposal, such as interview (structured), questionnaire, in-depth interview, observation or content analysis (Vaus, 2002, p. 6), along with the very purpose of this study which is to explore the *internal service providers* and students with and without special needs opinions, attitudes, knowledge, experiences, demographic data and perceptions about the state of inclusive education and awareness of policy related to inclusion in higher education, the measurement approach that was selected and used for our investigation is relevant and pertinent.

It is important to mention that the current study is not a replica of any other study, nevertheless it was highly influences by previous research in the matter, and therefore the creation of a unique set of questioners was not only necessary but a premise. The

questionnaires utilized have a mixed format of closed statements and open questions. Nevertheless the closed statement question format was the predominant one, while the open-ended questions were used incidentally to fill the gaps when the respondents were on the need to specify certain matters. More about this in the questionnaire design section. A cross-sectional survey research: The research was conducted through two main stages depending the research question or sub-question to be answer. The first stage will be focus on the answer of the main research question: *What are the students experiences and stakeholders perception of practicing the educational policy towards inclusion in higher education at UNAM in Mexico?*

Where the research matter to be studied is the institutional behavior towards inclusive education of a Public Higher Education Institution (PHEI) from a Latin-American country member of the OECD: Mexico. By having the understanding that institutional behavior is “that behavior which we observe individuals in a field of institutional relationships to be performing, when we, as observers, give up the implicit, purposive approach by which this field and the individuals within it were selected, and regard the individuals themselves as the unique, explicit, and independent objects of our investigation.”(Allport, 1933).

The second stage of the research will be focus on the answer of the research sub-questions:
Sub-questions:

1. What are the stakeholders’ perceptions of practicing education policy for inclusion for students with special needs in Higher Education?
2. What are the student experiences of practicing inclusion in Higher Education?

In these two sub-questions the research subject population is: students, students with special needs or disabilities, administrative personnel and academic staff of the UNAM. In this stage the variables to be considered are those related to the “perception of students, administrative staff and academic personnel” of the institutional behavior towards inclusive education in their institution. Having the understanding of “perception of students” to the awareness, knowledge and attitudes they have of certain aspects of their academic environment. In this specific case to those aspects related to inclusiveness in education. E.g.-infrastructure, teaching methods, accessibility etc. Considering that in a cross-sectional study design either the entire population or a subset thereof is selected, and from these individuals, data are

collected to help answer research questions of interest. For the purpose of this study the term cross-sectional study will refer to this particular research design and the term questionnaire to refer to the data collection form that is used to ask questions of research participants(Olsen and St. George., 2004). Primary Data collection strategies: Cross-sectional exploratory survey. Secondary Data collection strategies: Public statistics and related literature (Articles, laws etc.). Finally we have proceed to the analysis of the achieved data in the two previous stages in order to identify problems, differences, commonalities, evolution and possible common trends among the Mexican inclusive education policy and the UNAM's institutional behavior towards inclusion and the internal service providers and users perceptions of it.

4.2 Sampling

The research has been undertaken in Mexico City, Mexico. It involved one Mexican public higher education institution: The National Autonomous University of Mexico (UNAM) is based in the capital city of the Mexican Republic. Due the fact that the method used to gather the data from the respondents was an online questionnaire, the respondents questioning took place mainly at the university information and communication technologies facilities and other locations where they were having access to internet.

The university was chosen due the fact that is the most important public higher education institution in matters of research, population and infrastructure in the country.

The statistical data from the Statistics Agenda UNAM (UNAM, 2011) provided to the current study enough information about population, infrastructure, employees and legislation which was also a determinant factor for the selection of the institution matter of this study. The UNAM is an institution that can be considered a mega university due its great capacity and potential capacity for knowledge production, population and size. Those characteristics were also taken into account for the selection of such institution to conduct our study. The table above gives a brief account of it.

Enrolled students in the school year 2011-2012		
Bachelor students • 187,195 (87.73%)	Post graduate students • 26,169 (12.26%)	Total students enrolled • 213,364 (100%)

TEACHING AND RESEARCH CENTRES		Internal Service Providers		
13	Faculties	Administrative personnel •27, 120 (42.46%)	Academic staff •36,750 (57.53%)	Total •63,870 (100%)
7	Multidisciplinary units			
4	Professional schools			
19	Institutes			
10	Research centres			
UNIVERSITY INFRASTRUCTURE				
Builted Area		2,391,970 m²		
Buildings		2,125		
Clasrooms		3,884		
Cubicules		3,734		
Laboratories		2,802		
Workshops		420		
Libraries		134		
University Computer Network		66.116		

Table 2 : UNAM numeralia. Taken and modified from Agenda UNAM 2012.

Another factor taken into consideration for the selection of this particular university was the fact that the information and communication technologies were widely available to the respondents along the fact that this higher education institution by itself a fundamental pillar of the Mexican education system as we can learn from the previous figures.

4.2.1 Respondents

This thesis examines statistical data regarding general knowledge, attitudes, opinions and practical experiences of respondents about the state of inclusive education in their institution UNAM and related national and international policy.

The population spectrum selected for this research was classified in two main groups, in one hand, the *internal service providers* conformed by two subgroups or strata *administrative personnel and academic staff*, and in the other hand the *users of the education system* group conformed by *students with special needs* and *students without special needs*. Hence four subgroups or categories of respondents were exposed to the current research:

- A) Administrative personnel
- B) Academic staff

C) Students with special needs

D) Students without special needs; The figure below exemplify this.

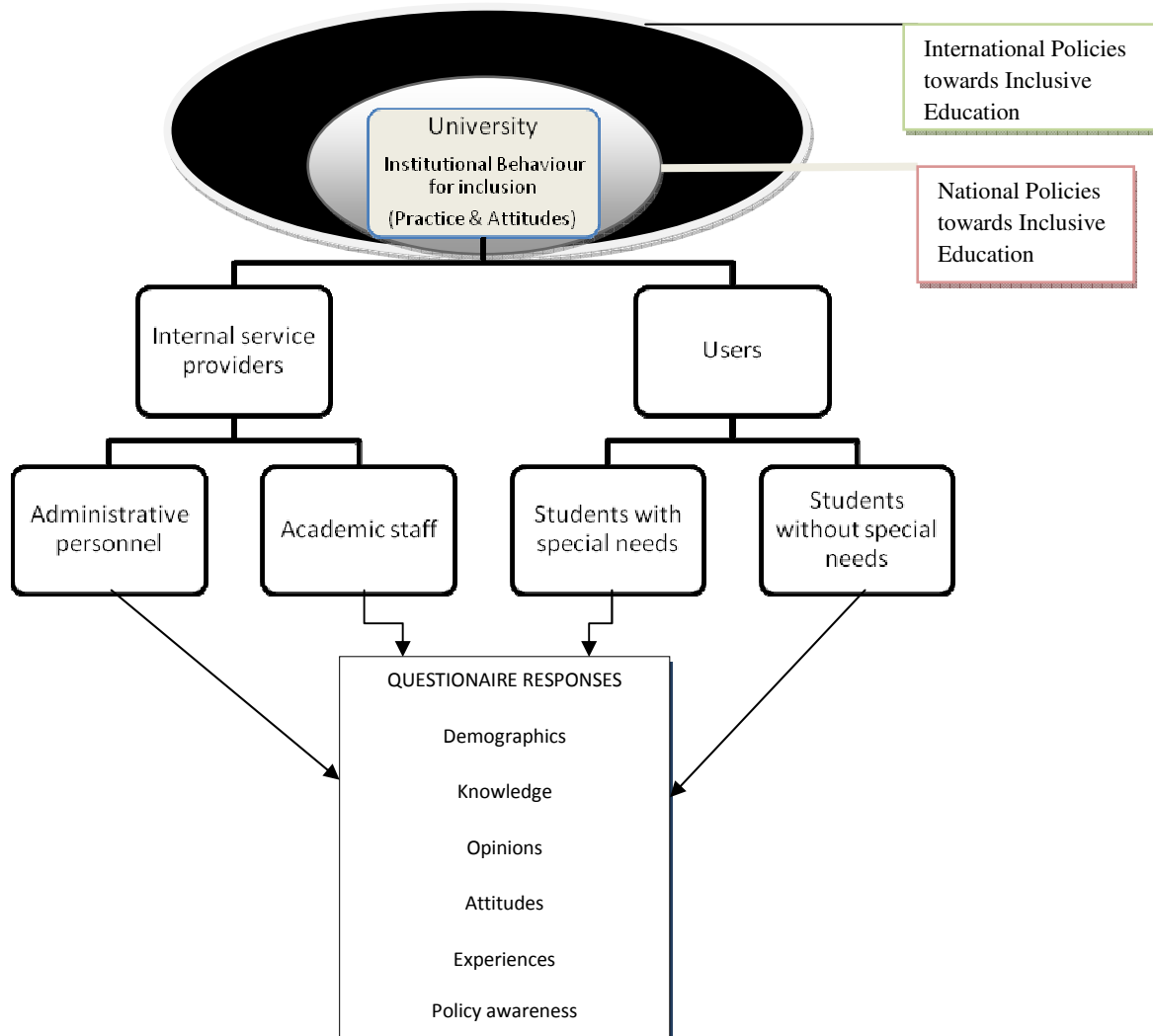


Figure 1: Scheme of respondents

The subgroups of respondents were selected due their very particular condition of being directly related to the studied matter, fact which made them suitable for achieving data about their knowledge of policy, opinions, attitudes and experiences related to the state of inclusive education at the university.

Targeted Population:

A) *Academic personnel* defined as all teaching and non-teaching academic staff. This includes regular classroom lecturers, professors and instructional personnel, other instructional

personnel such as substitute or resource teachers, teacher aides and teaching/research assistants, pedagogical and academic support staff such as guidance counselors and librarians, health and social support staff such as psychologists and nurses, principals, vice-principals, other school supervisory staff, board or higher level management and board or higher level administrative personnel.

B) *Administrative staff* defined as the school level administrative personnel with no curricular teaching responsibilities such as administrative assistants whereas secretaries, receptionists, security staff and clerks are included.

C) *Students without special needs* defined as any currently enrolled student at the UNAM, either full-time or part-time, from bachelor level to post-doctorate studies and without any disabilities that required special aid of any kind.

D) *Students with special needs* defined as any currently enrolled student at the UNAM with any kind of disability that requires special aid of any kind or modifications in the educative environment.

The targeted subjects in the previous two categories (C and D) could be either full-time or part-time students, from bachelor level to post-doctorate studies.

4.2.2 Sampling Strategy

In quantitative research the two major types of sampling are random sampling and non-random sampling where the former produces representative samples and the latter does not produce representative samples (Johnson, 2012). Therefore for the current study as we were looking to have representative samples of the population to be studied, we used random sampling.

Among the different types of random sampling we can find Simple Random Sampling, Systematic Sampling, Stratified Random Sampling and Cluster Random Sampling. The chosen type of random sampling was the Stratified Random Sampling as

”when doing a cross-sectional study, important subgroups of people may have different views or life experiences or health related behaviors... So when gathering information about a diverse population, care must be taken to ensure that the relevant subgroups are adequately represented in the study sample”(Olsen, St. George, 2004, p.17).

There are two different types of stratified sampling which are *proportional stratified sampling* and *disproportional stratified sampling* for the present study we opted to chose the *proportional stratified sampling* as we wanted the subsamples to be proportional to their respective sizes in the population. Another reason was that proportional stratified sampling is an equal probability sampling method (EPSEM), which will allowed us the possibility of making generalizations when necessary with respect of the total population. Also is pertinent to mention that in the current study the population elements can be selected only one time. Hence we can say that the sampling method used in this study is a *random stratified proportional sampling with no replacement*. Due limited time and resources we decided that the sample size could have a maximum aspiration of reaching the 10% of the targeted population .

The Special Needs in Higher Education Survey was applied on-line to academic personnel, administrative staff , students and students with special needs or disabilities at the UNAM. Due the fact that this research was conducted in order to better understand the dynamics of the institutional behavior of universities when implementing public policies towards inclusiveness in higher education and the response of the students subject of the studied matter, a cross-sectional survey technique was chosen as the main gathering data collection.

The ultimate purpose of this survey was focus on providing knowledge about the state of inclusive education for students with special needs at a higher education institution, the UNAM.

4.2.3 Sampling Frame

As we stated in the previous section a *proportional stratified sample* technique was implemented so the proportions of subjects in each strata in the population are reflected in the proportions of subjects in each strata in the sample. The targeted population was classified on

a first stage in two main groups : *Internal service providers* with fourteen respondents equal to 23% of the population and *Users of the education system* with ninety-six equal to 77% of the population. As shown in the figure below.

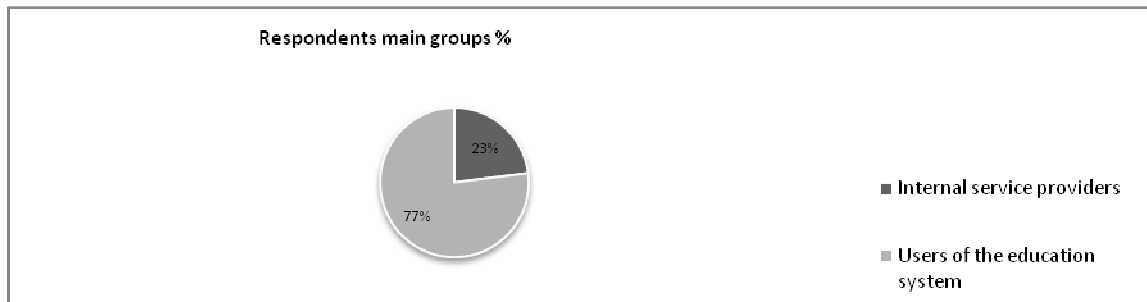


Figure 2: Respondents strata percentages

Considering the sub groups of the targeted population can be described in the following way: The *Internal service providers* group (23% of the total sample) is conformed of two sub-groups which are: *Administrative personnel* and *Academic staff*; where the *Administrative personnel* equal to 10 % and *Academic staff* equal to 13% of the total population. The *Users of the education system* group (77% of the total sample) is conformed also of two subgroups which are: *Students without special needs* and *Students with special needs*, where the *Students without special needs* equal to 66% of total sample and the *Students with special needs* equal to 11% of the total population. Let's have a look to the following figure.

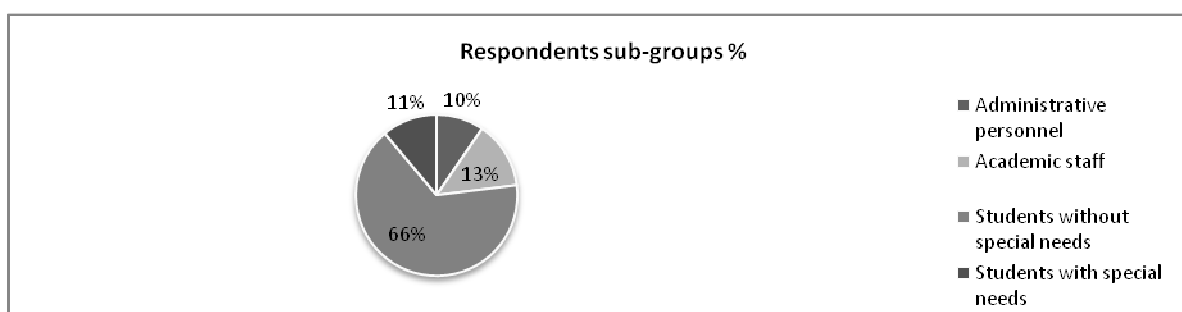


Figure 3: Respondents sub-strata percentages

In order to ensure that our sampling frame of respondents represented relatively the population we were interested, in our study a proportional stratified random sampling technique was used (Gall et al., p. 173). If we assume that the most convenient sample is a segment of a population that reflects the population accurately (Bryman, 2008, p.168). The

specific sets of groups were purposely selected so the subgroups in the population were consistently represented in the sample. For the current study the accessible population size equals 126 individuals . The numbers of respondents per sub-group group were distributed in the following manner: administrative personnel twelve respondents (12) , academic staff seventeen respondents (17) for a group subtotal of twenty-nine (29) Internal service providers subjects. In the other two subgroups the numbers where distributed like this: Students without special needs with eighty-three (83) and students with special needs with fourteen (14) subjects, for a group subtotal of ninety-seven (97) subjects as shown in the following figure:

INTERNAL SERVICE PROVIDERS (ISP) SAMPLE SIZE	Administrative personnel	12	10%
	Academic staff	17	13%
	Group sub-total	29	23%
USERS OF THE EDUCATION SYSTEM (UES) SAMPLE SIZE	Students without special needs	83	66%
	Students with special needs	14	11%
	Group sub-total	97	77%
	Total sample size & percent	126	100%

Table 3: Internal Service Providers (ISP) & Users of the Education System Sample size.

In order to arrive to the numbers expressed in the table above a *proportional stratified random sampling with no replacement technique* was implemented, as we wanted our sample to be representative of the same proportion of various groups and subgroups in the population. This process consisted of two steps described below: *The First step* consisted of the development of a sampling frame using information derived from the university Statistics Agenda (UNAM, 2011), which allowed us to know the stratum population and percentage of the targeted groups and subgroups in that population. As we mention before the population of the study was grouped in two main groups and four subgroups or strata representing respectively the sample of targeted population we were interested in. The illustration in the figure below summarized this.

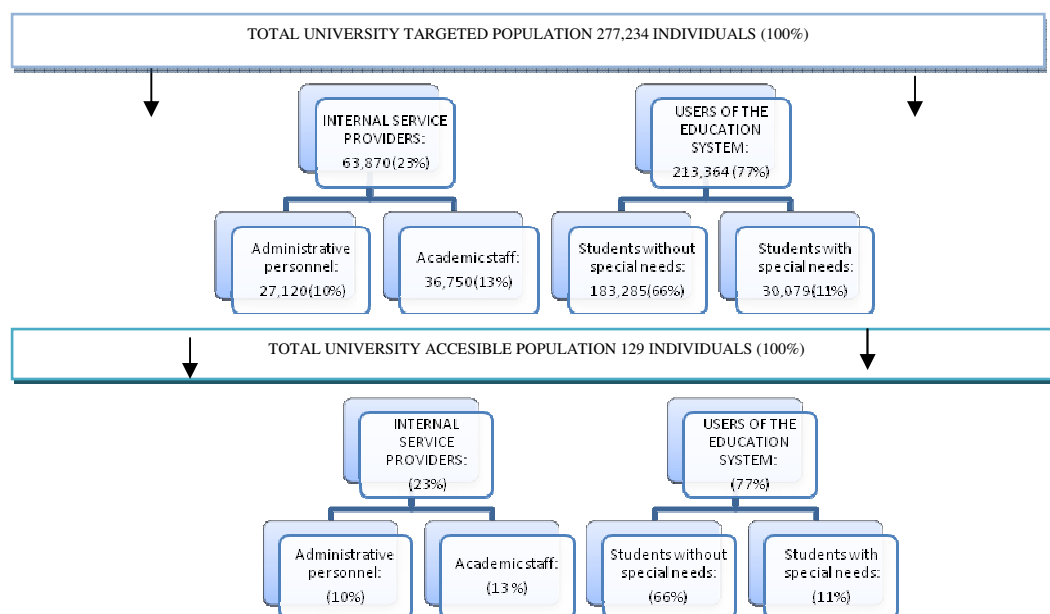


Figure 4:Proportional strata sample

The second step consisted in the determination of the size of the strata of accessible population in a proportional relation with the population size of each stratum. In order to achieve that we utilized the following formula: $n_h = (N_h / N) * n$ where n_h is the sample size for stratum h , N_h is the population size for stratum h , N is total population size, and n is total sample size. As we wanted that the sample size of each stratum to be proportionate to the population size of the stratum. This formula was applied to each and every one of the strata of the accessible population, as shown in the following figure.

GROUPS	SUBGROUPS	TARGETED POPULATION	TARGETED POPULATION %	ACCESIBLE POPULATION	SRATA SIZE FORMULA $n_h = (N_h / N) * n$	STRATA SIZE n_h	STRATA % $n_h\%$
INTERNAL SERVICE PROVIDERS	Administrative personnel	27,120	10%	12	$n_h = (27120 / 277234) * 126$	12.35	9.80%
	Academic staff	36,750	13%	17	$n_h = (36750 / 277234) * 126$	16.70	13.25%
	Subgroup sub-total	63,870	23%	29	$n_h = (63870 / 277234) * 126$	29.02	23.03%
USERS OF THE EDUCATION SYSTEM	Students without special needs	183,285	66%	83	$n_h = (183285 / 277234) * 126$	83.30	66.11%
	Students with special needs	30,079	11%	14	$n_h = (30079 / 277234) * 126$	13.67	10.84%
	Subgroup sub-total	213,364	77%	97	$n_h = (213364 / 277234) * 126$	96.97	76.96%
	Total	277,234	100%	126	$n_h = (277234 / 277234) * 126$	126	100%

Table 4: Proportional strata demonstration.

4.3 DATA COLLECTION FRAMEWORK

The data collection framework developed by Brown (2008) establishes four main types of data that can be gathered in order to assess the needs of the student population. These types are:

The Program data: which consider Curriculum and instruction School climate, codes of conduct. Teacher recruitment, retention, and professional development, Auxiliary programs,(e.g. after-school, extra-curricular and tutoring related data.

The Demographic data: which can Clarifies students needs, Static: gender, age, Socio-economic status and Special needs related data.

The Student achievement data: Annual, standardized test data, Periodic assessments and demonstrations, On-going classroom, progress monitoring.

The Stakeholders perception data: Opinions and ideas of stakeholders that can support hypothesis about programs and student needs.

As shown in the following model in the figure below developed by the center for comprehensive school reform and improvement (2008) :

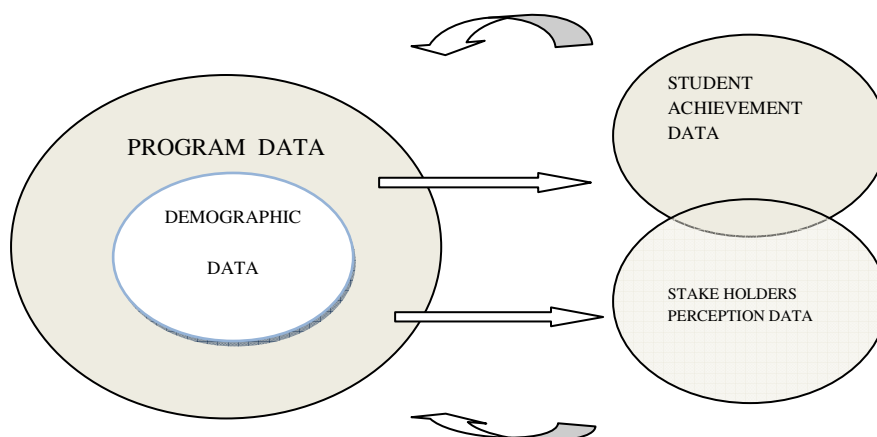


Figure 5: Data collection basic model

In order to fulfill the necessities of our research we retook and modified the above data collection framework by adding an extra category of data type, which is the *policy related data* and we replaced the *student achievement data* for the *institution achievement data* as our

main focus is on the institutional behavior towards inclusive education, related policies and perceptions about them from the targeted population. Therefore the Data Collection Framework we used in our study consisted of five types of data that can be described like this:

The Program data: which considers Curriculum , *instruction or school climate*, specialists recruitment and professional development, related to inclusion in education. With a special emphasis taken on the physical and social dimensions of the instruction climate.

The Demographic data: Static information such as gender and dynamic information such age range, Socio-economic status and Special needs of students related data.

The Institutional achievement data: which considers the institutions assessment of their practice and response related to inclusive education including the competence and competence assessment of the internal service providers.

The education policy data: which considers the laws, regulations and public initiatives directed to inclusion in education.

The Stakeholders perception data: Opinions and ideas of stakeholders that can support hypothesis about programs and student needs. By the understanding that a stakeholder is a person (or group) that has an interest in the activities of an institution or organization. In our study the stakeholders are the users of the education system group represented by students with and without special needs and the internal service providers group conformed by academic and administrative staff.

The data collection framework used in our research and its modifications are driven by the necessity of obtaining inclusive education demographic related data and perceptions about policy related to inclusive education and the perceptions of the institutional achievement related to inclusion, therefore the main focus en each type of data collected will be inclusion in education. We can be observed such modifications in the following chart where the striped portions indicates the data we were interested to gather with our survey.

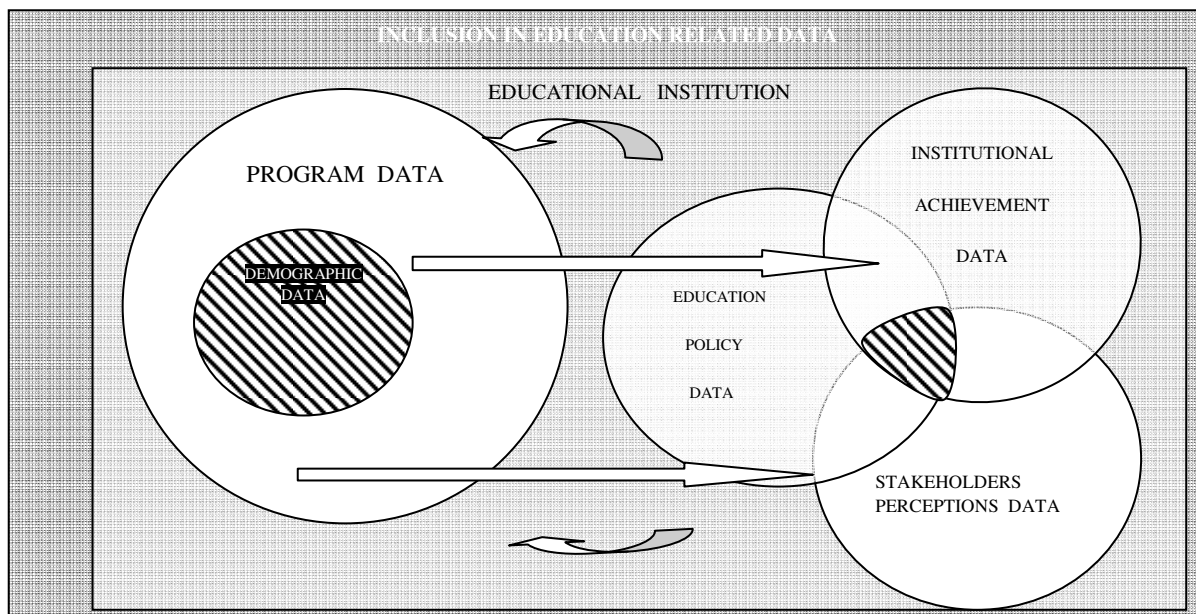


Figure 6: Data collection modified model.

4.4 Questionnaire

In modern social sciences research, including the education field questionnaires, interviews and observations are well known as three main strategies of empirical data collection (Befring, 2004). Where a questionnaire can be defined as a highly structured data collection technique whereby each respondent is asked the same set of questions (De Vaus, 2002). For the purpose of this study a structured self-developed set of questionnaires using closed or forced choice questions where respondents were offered alternative replies for quantitative analysis, and in some very specific questions the respondents were allowed to answer in an open-ended way as an attempt to gather more individualized data. According to the *Quantitative research methods in educational planning* (UNESCO, 2005) the types of information that can be collected by means of a questionnaire are facts, activities, level of knowledge, opinions, expectations, aspirations, membership of various groups, attitudes perceptions.

The selection of questionnaire as an instrument of data collection was mainly based on its strength in allowing anonymity and privacy since the focus was to solicit information relating to respondents attitude, behavior, knowledge and attributes on a subject that could be sensitive due its own nature, along the fact that is directly related to the education environment and professional practices where the respondents co-exist. Therefore anonymity

was a key element in order to achieve as much as possible honest responses from the respondents. In order to conduct the current research the creation of two different questionnaires based on a single template was necessary due the intrinsic differences of the targeted population. One questionnaire called A1 was targeted for the internal service providers such as academic personnel and administrative staff and the other called A2 targeted for students with special needs and students without special needs. Both questioners were applied at the same higher education institution, in the same on-going academic semester spring 2012. The questionnaires A1 and A2 where conceived in Spanish , reviewed in English and applied in Spanish as this is the mother tongue of the targeted population. Therefore a translation of the instrument and the responses was necessary. In spite of this a translation of the questionnaires is available in appendix 1 and 2.

The questionnaire A1 targeted for internal service providers where the respondents where academic staff and administrative personnel comprised of five sections (see Appendix 1); section 1) *Demographics and Professional experience*, section 2) *Services available for students with special needs*, section 3) *Competence*, section 4) *Barriers* and section 5 *Inclusive Education policy awareness*.

Section 1 *Demographics and professional and non-professional experience* contains 16 items. The first 6 items where dedicated to collect the demographic profile of respondents which included their working status- whereas academic or administrative staff, current position at the university , age range, gender, highest level of education and main field of studies in their highest level of education. The other subsequent 10 items were dedicated to gather data about the respondents experience- professional and non-professional- in providing aid to people with special needs or disabilities and type of special needs attended whereas outside the university environment as well inside the university environment .

Section 2 *Services available for students with special needs* contains eleven items, where the first nine items were formatted and adapted from the NJ Survey of Campus Programs for Students with Disabilities (New Jersey Commission on Higher Education, 2007) which are dedicated to gather data about the level of concern about services directed for students with special needs or disabilities at the university, which included the following categories: Assistive technology, Documentation ad hoc for students with special needs, Faculty

cooperation and training, Finding and hiring qualified disability and special needs staff, Provision of sign language interpreters, Provision of counseling for students with psychiatric and psychological issues, Mobility and accessibility in campus, library special needs resources and Transportation home-university-university home for students. The rating occurred on a Likert-type scale whose responses were rated based on Very concerned, Mildly Concern, Not a concern currently, plus the addition of a fourth answer category such as I don't know, due the fact that for the purpose of this very specific study is relevant to elucidate the knowledge of the respondents about the question mater. The 10th item was elaborated in order to gather data about the respondents' perception of the adequacy of the university infrastructure in general for students with disabilities or special needs. The 11th item of this section was designed to achieved information about the respondents attitude towards sharing the educational environment with students with special needs or disabilities. The rating occurred on a Likert-type scale whose responses were rated based on modified 8 point Likert-type scale whose responses were rated based on Not at all, To a small extent, To some extent, To a moderate extent, To a great extent, To a very great extent, I don't know and I don't want to answer.

Section 3 *Competence* contains four items designed to gather data from the respondents about training received from the institutions for dealing with the special needs of the students, the type of training, convenience of aid provided by the institution to deal with the special needs of students and competence to provide assistance to students with special needs or disabilities. The 3rd and 4th items used a six point Likert-type scale whose responses were rated based on Not at all, To a small extent, To some extent, To a moderate extent, To a great extent, To a very great extent.

Section 4 *Barriers* contains nine items. The items where dedicated to gather data from the respondents about the relevance of the main barriers for an effective instrumentation of inclusive education at the university which included Knowledge about diversity and inclusion in education, flexibility of curriculum, preparation on inclusive education of academic staff and education leaders, teaching methods, learning environment, special needs identification processes and assessment procedures, economic resources, mobility and accessibility in campus, transportation home university-university-home. The main barriers were based and adapted from the IBE-UNESCO Preparatory Report for the 48th ICE on Inclusive Education

(2007). All items used a six point Likert-type scale whose responses were rated based on Not at all, To a small extent, To some extent, To a moderate extent, To a great extent, and To a very great extent.

Section 5 *Inclusive Education policy awareness* contains five items. The items were conceived to collect data from respondents about the awareness of the policies directed to foment inclusive education at international, national and institutional level along with gathering data to know to what extent such national and international policies are met at the university. In all items the rating occurred on a modified 8 point Likert-type scale whose responses were rated based on Not at all, To a small extent, To some extent, To a moderate extent, To a great extent, To a very great extent, I don't know and I don't want to answer.

The questionnaire A2 targeted for students with or without special needs, comprised of four sections (see Appendix 2): Section 1 *Demographics and Special needs of students*, Section 2 *Services available for students with special needs*, Section 3 *Barriers* and Section 4 *Inclusive Education policy awareness*.

Section 1 *Demographics and Special needs of students* contains twenty items. The first 14 items were dedicated to collect the demographic profile of respondents which included age range, gender, highest level of parents education, type of institution where respondents received their primary, secondary and high school education whereas public, private, special, integrative, regular, distance or open education. Also the level of satisfaction of respondents about their immediate previous and current education was rated using a six point Likert-type scale whose responses were rated based on Not at all, To a small extent, To some extent, To a moderate extent, To a great extent, and To a very great extent. Also the main field of studies of respondents current education was included and if the respondents were par-time or full time students. The other subsequent 6 items were dedicated to gather data related to the special needs of the respondents. This included if the respondents considered themselves to have or not a special need or disabilities, if the respondents have ever been diagnosed with a special need or disabilities and the type of special need or disability.

Section 2 *Services available for students with special needs* contains fourteen items, where the first nine items were formatted and adapted from the NJ Survey of Campus Programs for Students with Disabilities (New Jersey Commission on Higher Education, 2007) which are dedicated to gather data about the level of concern about services directed for students with special needs or disabilities at the university, which included the following categories: Assistive technology, Documentation ad hoc for students with special needs, Faculty cooperation and training, Finding and hiring qualified disability and special needs staff, Provision of sign language interpreters, Provision of counseling for students with psychiatric and psychological issues, Mobility and accessibility in campus, library special needs resources and Transportation home-university-university home for students. The rating occurred on a Likert-type scale whose responses were rated based on Very concerned, Mildly Concern, Not a concern currently, plus the addition of a fourth answer category such as I don't know, due the fact that for the purpose of this very specific study is relevant to elucidate the knowledge of the respondents about the question mater. The other subsequent 4 items were elaborated in order to gather data from the respondents such as if they have been receiving any type of aid or special services related with their special needs from the university, type of special need the university provide aid for, if the respondents have ever been exposed to any kind of information related to the attention of the special needs of students in general at the university. The 14th item was designed to achieve information on how relevant the aid provided by the university was in order to cope with the special needs of the respondent. The rating occurred on a modified 8 point Likert-type scale whose responses were rated based on Not at all, To a small extent, To some extent, To a moderate extent, To a great extent, To a very great extent, I don't know and I don't want to answer.

Section 3 *Barriers* contains thirteen items. The first nine items where dedicated to gather data from the respondents about the relevance of the main barriers for an effective instrumentation of inclusive education at the university which included, knowledge of diversity and inclusion in education, flexibility of curriculum, preparation on inclusive education of academic staff and education leaders, teaching methods, learning environment, special needs identification processes and assessment procedures, economic resources, mobility and accessibility in campus, transportation home university-university-home. The main barriers were taken and adapted from the IBE-UNESCO Preparatory Report for the 48th ICE on Inclusive Education(2007). All 9 items used a six point Likert-type scale whose responses were rated

based on Not at all, To a small extent, To some extent, To a moderate extent, To a great extent, and To a very great extent. The subsequent four items were dedicated to gather data of respondents perception of the adequacy of the university infrastructure in general for students with disabilities or special needs, of the extent the lack of resources for students with special needs have affected their academic performance, of the extent the lack of resources for students with special needs have affected their time taken for completing their studies and about the respondents attitude towards sharing the educational environment with students with special needs or disabilities. The rating occurred on modified 8 point Likert-type scale whose responses were rated based on Not at all, To a small extent, To some extent, To a moderate extent, To a great extent, To a very great extent, I don't know and I don't want to answer.

Section 5 *Inclusive Education policy awareness* contains five items. The items were conceived to collect data from respondents about the awareness of the policies directed to foment inclusive education at international, national and institutional level along with gathering data to know to what extent such national and international policies are met at the university. In all items the rating occurred on a modified 8 point Likert-type scale whose responses were rated based on Not at all, To a small extent, To some extent, To a moderate extent, To a great extent, To a very great extent, I don't know and I don't want to answer. No personal data or private information as names, personal identity numbers or addresses were collected, used or stored during or after the conclusion of the survey research.

4.5 Validity, Reliability and Ethics

4.5.1 Validity

Validity tell us the extent to which the instrument measures what it was created to measure. (Kombo & Tromp, 2006). According to Vaus (2002) there are several basic ways of to assess instrument validity. For the purpose of this research we used a content validity approach. Content validity refers to the degree to which the instrument fully assesses or measures the construct of interest. In our case the questionnaire related to inclusive education perception of practices and policies. We wanted to ensure that our questions represented as much as possible the domain of attitudes toward inclusion. The development of our questionnaire in a content valid instrument was achieved by a rational analysis of the instrument while

confronted by 5 raters (one from The University of Oslo and four of the UNAM) all of them professors familiar with the construct of interest. All raters reviewed critically all of the items for readability, clarity and comprehensiveness and come to some level of indirect agreement as to which items should be included in the final instrument. The Face Validity element of the content validity was also achieved by the same 5 raters which established after reviewing the instrument individually that it measures the characteristics of the studied matter.

4.5.2 Reliability

Reliability can be defined as the extent to which a questionnaire, test, observation or any measurement instrument produces consistently the same results on repeated trials (Vaus,2002) . In other words is about the stability or consistency of scores over time or across raters. During these research the three aspects of reliability- equivalence, stability and internal consistency (homogeneity)- were taken into consideration. The equivalence principle, was demonstrated by assessing the inter-rater reliability which refers to the consistency with which observers or raters make judgments about the data collection instrument whereas by item, thematic sections and overall. The procedure for determining inter-rater reliability is: $\# \text{ of agreements} / \# \text{ of opportunities for agreement} \times 100$. For this process we counted with 4 raters all of them professors(UNAM) which were exposed 4 occasions in a three month period, to the common template of questions consistent of 5 thematic sections to be assess. Therefore each rater was having up to 20 opportunities for agreement in the rating of the 5 questionnaire sections, giving us a total number of 80 opportunities for agreement. The final number of agreements per rater was 19,17,18,19 for a total number of 80 agreements total. Which can be expressed like this: $73/80 \times 100$ that drops the final number of 91.25% of agreement. The third and last aspect of reliability is internal consistency (or homogeneity). Internal consistency concerns the extent to which items on the test or instrument are measuring the same thing. The appeal of an internal consistency index of reliability is that it is estimated after only one test administration and therefore avoids the problems associated with testing over multiple time periods. Internal consistency is estimated via the split-half reliability index, coefficient alpha (Cronbach, 1951) index or the Kuder-Richardson formula 20 (K R-20)(Kuder &Richardson, 1937). In this matter is necessary to inform the that due time restrictions and magnitude of the research this aspect of the reliability test through SSPS statistical analysis program is still pending. Therefore the reliability is partially proven, aspect that the reader must be aware.

4.5.3 Ethics

Ethics can be defined as a set of values standards and institutional schemes that help constitute and regulate scientific activity (Kombo & Tromp 2006). Therefore the delimitations and observance of ethical standards was necessary to follow. First and in compliance with the Norwegian authority the minimum standards and requirements for research where met, thus the clearance and authorization for conducting a survey research was given by the Norwegian Social Science Data Services (NSD)(Appendix 3). Second A formal written request and tacit consent for conducting the research in the National Autonomous University of Mexico was given. Diener and Crandall focus the ethical considerations in four main issues that must be taken into account (1978). Harm to participants, lack of informed consent, invasion of privacy and deception (Bryman, 2008, p. 118). In order to comply with this ethical standards, we ensure that the participants physical , sociological and psychological integrity was never compromised or set at stake as a resultant of the research process and outcomes, by creating a friendly to the user online format of the questionnaire with carefully selected neutral language and concepts not to cause annoyance from respondents and by approaching the topics with the necessary respect related to the studied matter. Deception was never an issue in the current research as the goals and objectives were express in a written way to the respondents, and all the time in concordance with the questionnaire design contents. This fact can ensure that hidden agendas were not steering the research process.

In addition to this voluntary participation, anonymity and confidentiality (Vaus, 2002, p. 59) of the respondents was observed. The voluntary participation and informed consent was granted by clearly informing the potential respondents about their rights to form or not to form part of the current research, and also by letting them know that their participation as respondents in this survey would be considered voluntary having them to know the right to withdraw themselves and the data provided for the purpose of this research at any stage. Also they were informed that by responding this survey on-line the participation consent is to be considered given *per se* by the respective respondent (see Appendix 4).

The anonymity was granted due the fact that the data was collected online through the world wide web therefore the researcher never was in direct contact with the respondents at any stage of the research, plus the fact that no personal information such as personal identification numbers, names or addresses were collected, so the respondents couldn't been identify or tracked back or singled out after the response process. Finally but not least, the confidentiality

principle was a prime concern to this project therefore the data supplied by respondents, has never being available on its raw state to anyone outside those involved in the research process. It is important to say that no raw data was stored after the completion of the project in order to finally ensure confidentiality and anonymity. We ensured that after the responses have been entered into the computer, was not possible to track back the respondents identity by omitting any question related with names, addresses or identification numbers of survey respondents.

4.6 Response Rate

The questioners where applied on-line to a total number of one hundred and twenty six (126) individuals which constitute the accessible population in our study. The response rate was $1/1 = 1$ as the number of respondents equals the number of prospective respondents contacted. The respondents were classified on a first stage in two main groups : *Internal service providers* with fourteen respondents (29) equal to 23% of the sample and *Users* of the education system with ninety-six (97) equal to 77% of the total sample size.

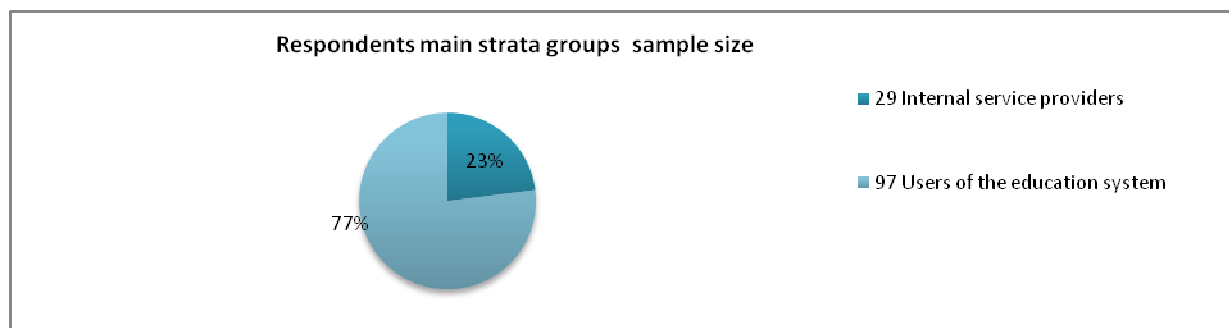


Figure 7: Respondents main strata group sample size.

Considering the sub groups of the sample the respondents rate can be described in the following way: The *Internal service providers* group with twenty nine respondents (29) equal to 23% of the total sample, is conformed of two sub-groups which are: *Administrative personnel* and *Academic staff*, where the *Administrative personnel* counted twelve respondents (12) equal to 10 % and *Academic staff* with seventeen(17) respondents equal to 13% of the total sample. The *Users of the education system* group counted ninety-seven (97) respondents equal to 77% of the total sample, is conformed also of two subgroups which are: *Students without special needs* and *Students with special needs*, where the *Students without*

special needs counted eighty three (83) respondents equal to 66% of total sample and the *Students with special needs* with fourteen (14) respondents equal to 11% of the total sample. Let's have a look to the following figure.

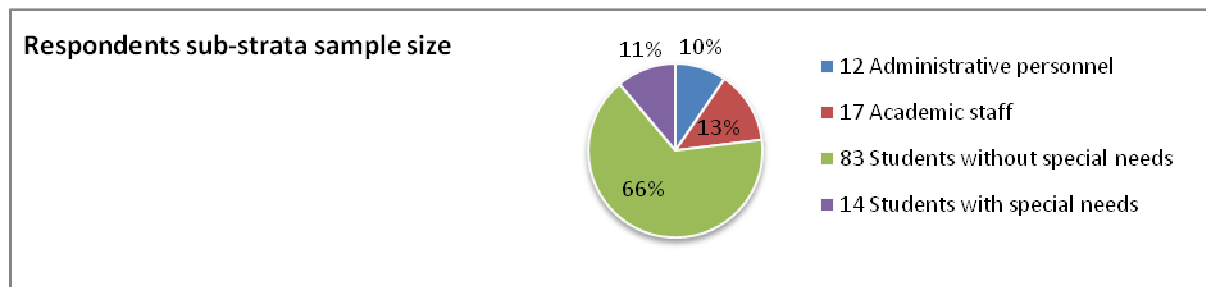


Figure 8: Respondents sub-strata sample size.

The research was conducted from 16th February till 30th May, 2012, considering the first and last online submissions of the answered questionnaire.

5 Presentation of Analyzed Data

5.1 Introduction

The data obtained was reviewed by the author and categorized according to themes. Data was organized, in part, according to the categories on the survey questioners, nevertheless the final criteria for organizing the data before analysis was taken and modified from the data collection framework classification. The author began the process of data analysis with data entry through a multistage sorting process. Data was classified and reviewed separately for each given thematic point. Thus, percentages, proportions and relative frequencies are the main indicators used to reflect the strength of particular themes and perceptions gathered. The author's immersion in the data over an extended period helped insure the quality of the analysis. Along the fact that he availability of external researchers review the material helped manage the subjectivity inherent in quantitative data interpretation (Holliday, 2002).The Thematic Topics for Data collected prior analysis and items are described in the table below:

Thematic Points	Questions	
Questionnaire Form	A1	A2
1 Demographics	1.1-1.4	1.1-1.2
1.1 General	1.13-1.16	1.15, 1.16, 1.18, 1.19
1.2 Special needs demographics		
2 Perception of school/instruction climate towards inclusion	2.1-2.6-2.10	2.1-2.9, 3.10
2.1 Perceptions of the physical dimension: Resources and universal design.	2.11, 3.1	2.10, 2.14, 3.13
2.2 Perceptions of the social dimension: Attitudes and institutional predisposition towards inclusive education		
3 Perceptions of the institution achievement towards inclusion in education	4.1-4.9	3.1-3.9
3.1 Assessment of barriers	5.3, 5.5	4.3, 4.5
3.2 Implementation of international and national policies towards inclusion		
3.3 Competence for inclusion	1.13-1.15, 3.1-3.4	2.11, 2.13
4 Perceptions of national and International policies towards inclusion	5.1, 5.2, 5.4	4.1,4.2,4.4
4.1 Awareness of inclusion in education policy		

Table 5: Thematic points

The collection of data from the previous described thematic topics were collected from two strata and four sub-strata. The Internal Service Providers (ISP) conformed by academic and administrative and the Users of Education System (UES) strata conformed by students with and without special needs. The strata and substrata A1 and A2 Respondents are described in the table below.

	University Stakeholders and Students			
STRATA	Internal Service Providers (ISP)		Users of the Education System (UES)	
SUB-STRATA	Administrative	Academic	Students without special needs	Students with special needs
Survey Form to be Applied	A1		A2	

Table 6: Strata and sub-strata: ISP and UES

5.2 General and Special needs demographics.

5.2.1 General Demographics

Of 123 respondents of the university community, 12 were administrative personnel (10%), 17 were academic staff (13%), 83 students without special needs (66%) and students with special needs 14 (11%) for a total of 100% considering the four groups of substrata. Never the less if we take only into account the main strata classification Users of the Education System(UES) and Internal Service Providers(ISP) as independent groups to each other, we can observe that from a 29 ISP (100%), 12 were administrative (41%) and 17 were academic (59%). In the case of the UES with 97 respondents (100%), 83 were students without special needs (86%) and 14 were students with special needs (14%).

		Survey Form Type	Questions	Item number	Number of items per category
1)Demographic Data	General demographics	A1	What is your working category? What is your current position at the University? What is your age range? What is your gender? How many years of professional experience do you have in your current position at this university?	1.1 1.2 1.3 1.4 1.8	5
		A2	What is your age range? What is your gender? Are you part-time or full-time student and the reasons?	1.1 1.2 1.10-1.11	4
	Special needs demographics	A1	While on duty at this university have you ever been providing professional services or lessons to students with disabilities? If your previous answer was affirmative please specify what kind of assistance did you provide to the students? Specify: To how many students with disabilities or special needs have you been giving assistance at the university? What kind of disability or special needs did the student or students where having? Do you have any personal or professional experience outside your working hours at the university of been giving assistance, providing service, special aid or lessons to any person with special needs or disabilities?	1.13 1.14 1.15 1.16 1.19	5
		A2	Do you consider yourself to have a disability or a special need? If your previous answer was affirmative what kind of disability or special need you consider to have? Have you ever been diagnosed with any kind of disability or special need? If your previous answer was affirmative what kind of disability or special need you were diagnosed with?	1.15 1.16 1.18 1.19	4
Number of items					14

Table 7: Demographic data: General Demographics and Special needs demographics.

5.2.2 Age range

Considering the main groups of strata the age range was distributed as follows for the ISP and the UES: In the age range of ISP 13 %were in the 22 to 34 years range, 23% were in the 35 to 44 range, 47% were in the 45 to 54 range, 17% in the 55 to 64 range.

In the case of the UES the age range was distributed like this: 28% with 21 or less , 57% with 22 to 34, 7% with 35 to 44, 6% with 45 to 54, 1% with 55 to 64 and 1% with 65 or more.

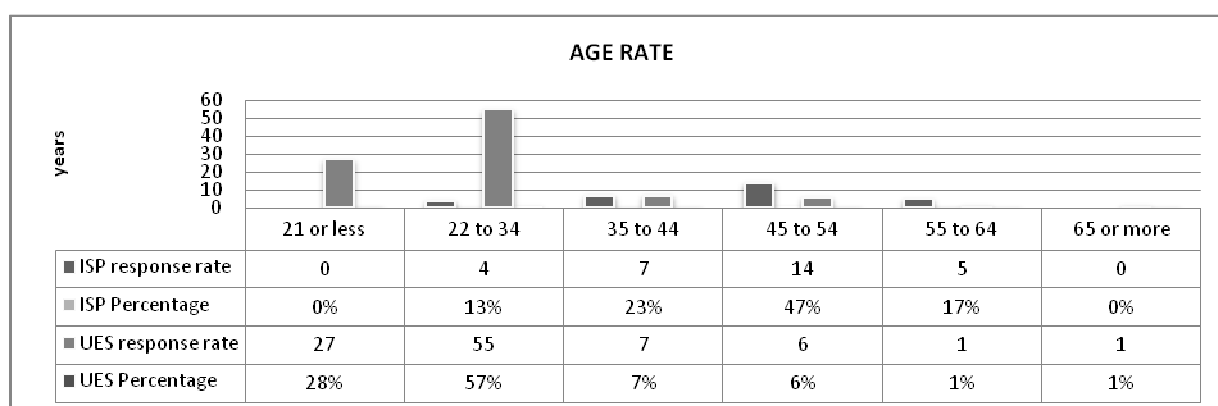


Table 8: Age rate: ISP and UES.

5.2.3 Gender

Considering the main groups of strata the gender was distributed as follows for the ISP and the UES: In the ISP group 12 persons were men (41%) and 17 women (59%). In the case of the UES 38 were men (39%) and 46 were women (61%).

5.2.4 Professional experience

As for years of professional experience in general of the ISP strata in their current positions at the university data was distributed like this : 6 with 0 to 2 years (21%), 3 with 3-5 years(10%), 2 with 6-9 years (7%), 10 with 10 to 14 years (35%), 6 with 15-19 years (21%), 1 with 20-24 years (3%) and 1with 25 or more (3%).

5.2.5 Special Needs Demographics

Considering the main groups of strata ISP and UES the demographic data was distributed as follow: From the 97 respondents UES group 14 (14%) consider to have a special need, from those only 8 (8%) have been diagnosed with a disability which makes them 57% of those in

the UES with special needs sub-strata. According to those considering to have a special need the special needs types they have are distributed like this:

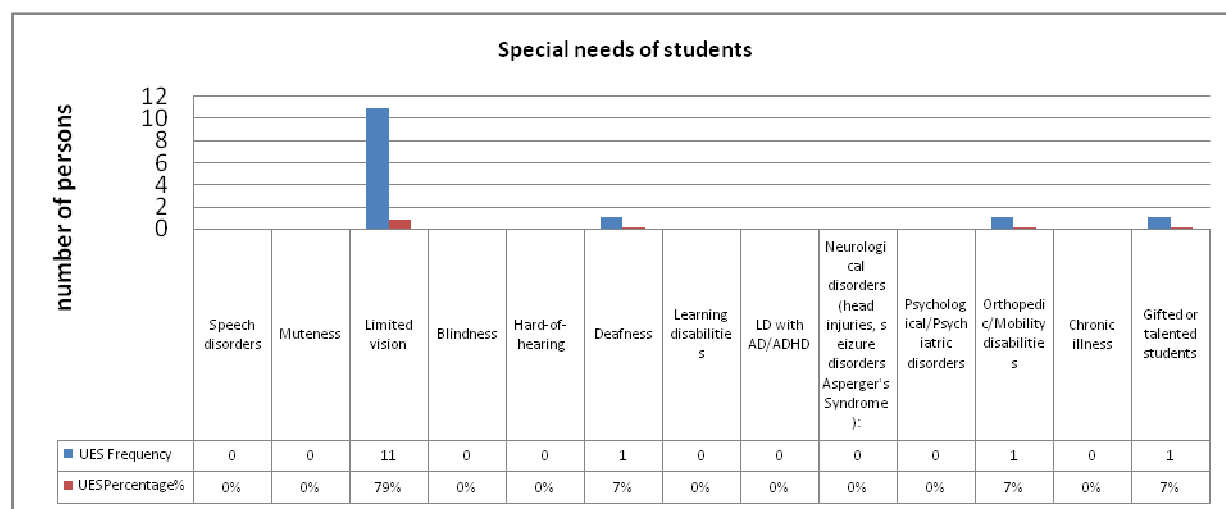


Table 9: Special needs of students.

In the ISP group, 11 persons (38%) declared to have previous experiences outside the university of providing aid or special services to persons with special needs and 18 (62%) have not. Also in this ISP group 15 (51%) have been providing professional services or lessons to students with disabilities while on duty at the university and 14 (48%) have not. According to those providing aid at the university the most common type of special needs that the students were having are distributed like this:

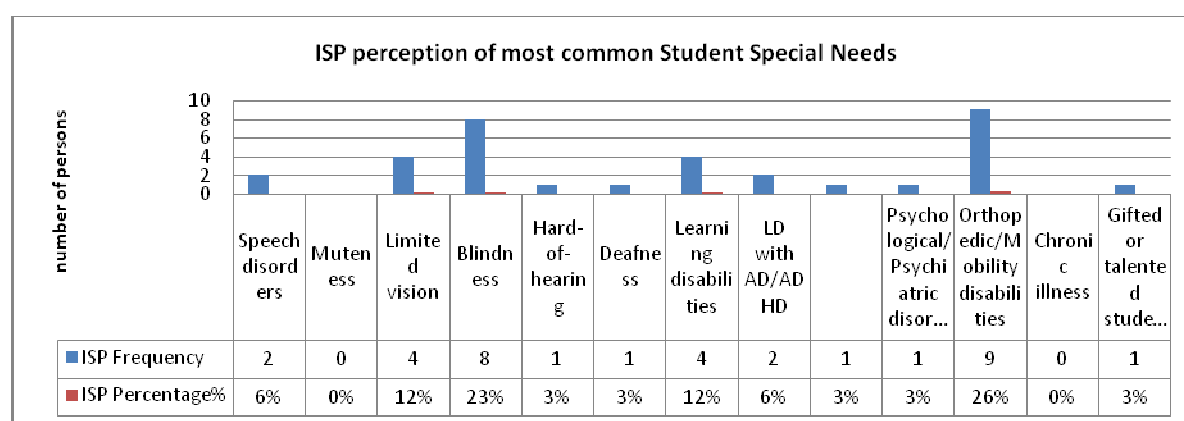


Table 10:ISP perception of most common students special needs.

Finally from the UES strata 78 were full time students (80%) and 19 part-time students (20%) due labor reasons.

5.2.6 Discussion of Demographics

From a demographic perspective the data studied show that the female are consistently represented in both strata with 59 % in the ISP and 61% on the UES strata. Therefore the gender equality has not only been achieved but inverted in favor of the female population at the university. The age in the ISP population is mainly concentrated in the range of 45 to 54 years (47%), followed by the age range 35 to 44 (23%) and age range 55 to 64 (17%). Which means that the gross of the ISP population (64%) are in the middle adulthood and up. In the UES strata the population was mainly concentrated in the range of 22 to 24 (57%), followed by the age range 21 or less (28%) and 35 to 44 (7%). Which means that 85% of the UES population are in the early adulthood. From the UES strata 20% of the population is part time student due labor reasons.

The professional experience in general of the ISP strata in their current positions at the university revealed that 35% of the ISP population has between 10 to 14 years of experience, followed by 21% with 15 to 19 years of experience. Which means that 56% of the ISP population has more than ten years of experience and between 10 and 19 years on their positions. Fact that can be an asset for the institution as experience is highly appreciated in educative matters. Despite of this it can be also an obstacle or an advantage for inclusion depending on how enrooted are practices in favor or against inclusive practices in education.

Also from this ISP population we can observed that 38% declared to have previous experiences providing any kind of services professional or not, aid or lessons to people with special needs outside the university environment. This can be a positive indicator of predisposition for diversity, service and care for people with special needs. From this group we also find that the scarce majority of them with 51% have been providing professional services or lessons or aid to students with disabilities while on duty at the university; Fact that slightly reinforces the previous indicator in pro of inclusion from the ISP strata. According to the ISP strata the most common disabilities they have been providing special attention among the student population are Orthopedic and mobility disabilities 26%, blindness 23%, and limited vision 12% and learning disabilities with 12% respectively. The On the other hand among the UES population of the substrata of students with special needs declared that their current special needs were limited vision with 79% of the special needs population, deafness 7%, orthopedic and mobility disabilities 7% and gifted or talented students 7%. This data is consequent with the ISP perception of the most common necessities of the students with

special needs, nevertheless cannot be conclusive as the sampled size even though proportional to the real population is not representative of the whole due its limited numbers. On the other hand both previous indicators can be a valuable insight of the special needs the students of the university may have more often.

5.3 Perception of the university climate

5.3.1 Physical Dimension

The physical dimension as part of the university/instruction climate considered the following aspects as indicators , the level concern for the resources available for students with special needs at the university: Assistive technology, Documentation ad hoc, Faculty cooperation/training, qualified disability support staff, sign language interpreters, counseling for Students with psychiatric and psychological issues, Library special needs resources, Mobility and accessibility in campus and Transportation(home-university-university-home). We also evaluated their perception of the extent of adequacy of infrastructure of in general for students with special needs at the university.

Perception of Stakeholders Related data	Inclusive education data			Survey Form Type	Questions	Item num berA 1	Item num berA 2	TOTA L Numb er of items
2)Program Data 1	Indicat ors of school/ instruct ion climate	Physical dimensio n	Resour ces for student s with special needs indicat ors	A1 &A2	Indicate what is the level of concern about different types of services available for students with disabilities: Assistive technology: Documentation ad hoc: Faculty cooperation/training: Finding/Hiring qualified disability support staff : Providing sign language interpreters: Providing counseling for Students with psychiatric and psychological issues Library special needs resources	2.1 2.2 2.3 2.4 2.5 2.6 2.8	2.1 2.2 2.3 2.4 2.5 2.6 2.8	
			Univer sal design (access and mobilit y) indicat ors	A1 & A2	Indicate what is the level of concern about different types of services available for students with disabilities: Mobility and accessibility in campus: Transportation(home-university- university-home) : To what extent you perceive the accessibility to buildings, class rooms, labs, canteen and toilettes and infrastructure in general are adequate for students with disabilities or special needs at the campus?	2.7 2.9 2.10	2.7 2.9 3.10	
NUMBER OF ITEMS PER SURVEY TYPE						10	10	20

Table 11: Perceptions of Program Data 1: Indicators of Instruction Climate: Physical dimension: Resources and Universal design

5.3.2 Resources available for students with special needs

Considering the main groups of strata the ISP data related to the level of concern about resources available for students with special needs was distributed as follow:

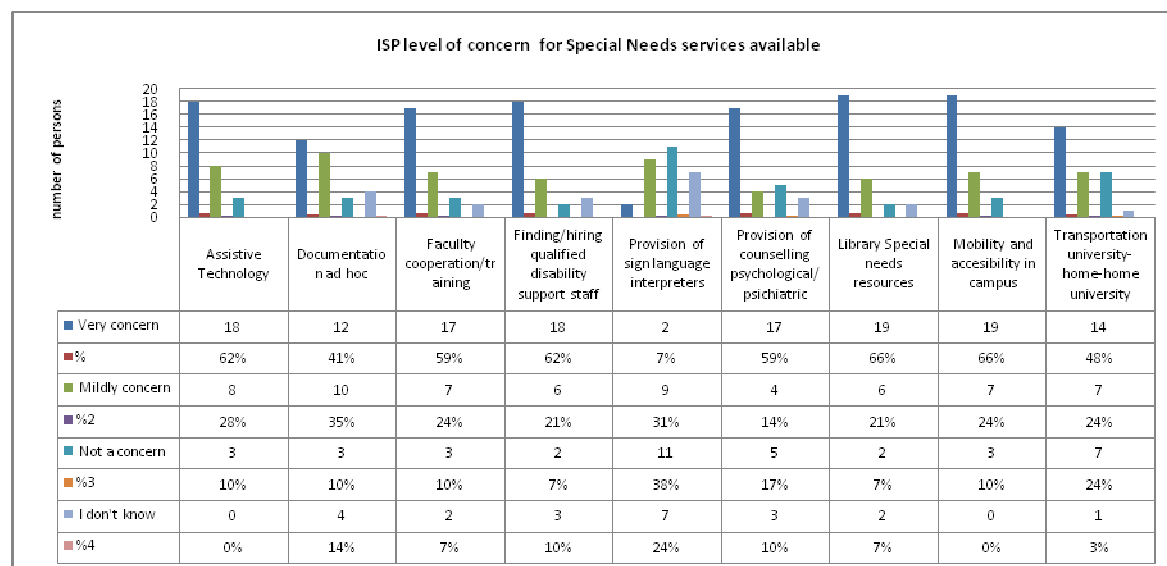


Table 12: ISP special needs available services concern levels.

In the case of the UES group the data related to the level of concern about resources available for students with special needs dropped the following results:

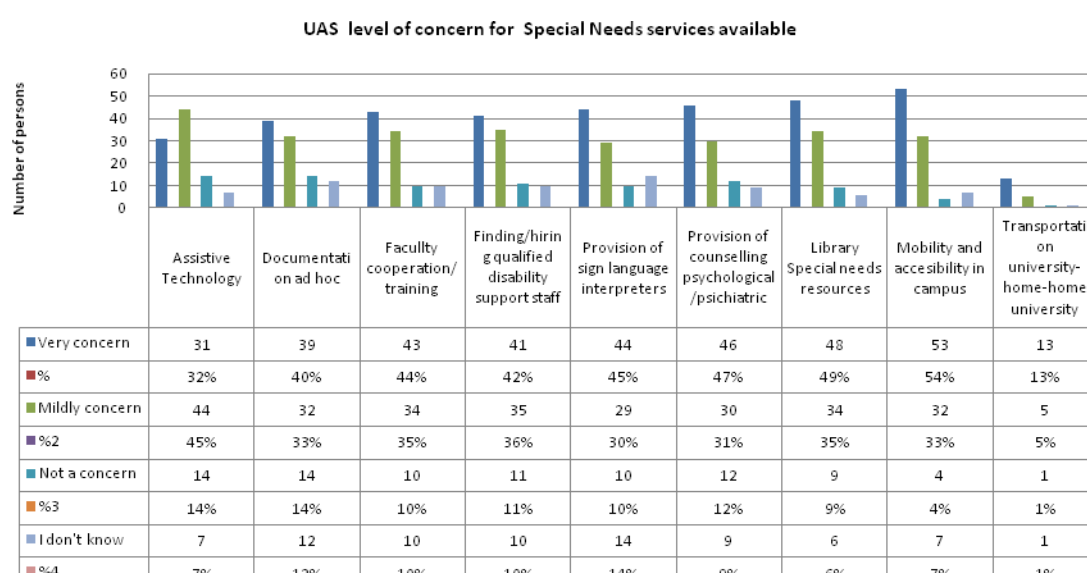


Table 13: UAS special needs available services concern levels.

5.3.3 Universal Design, Accessibility and Mobility

Considering the main groups of strata the data related to the level of concern about universal design resources available for students with special needs at was distributed as follow:

The ISP and UES groups perception about the adequacy of accessibility and universal design features in the infrastructure for students with special needs were distributed like this:

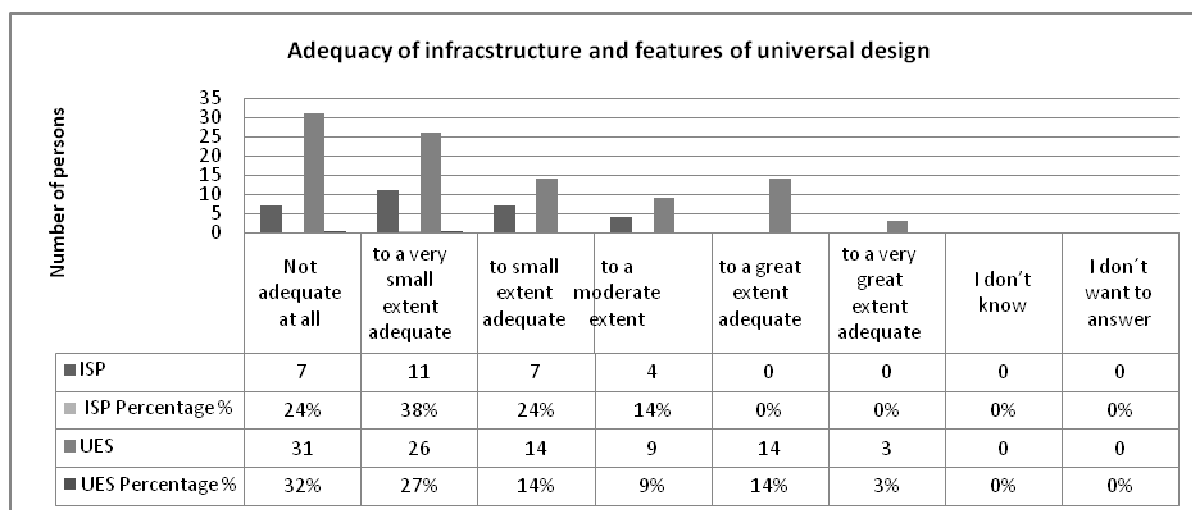


Table 14: Adequacy of infrastructure and features of universal design. ISP and UES.

5.3.4 Social Dimension

The social dimension as part of the university/instruction climate considered the following aspects as indicators to assess the Quality of interpersonal relationships between and among students with special needs, colleagues, teachers, and staff : We question the population to what extent they agree to share the education environment with students with special needs, and ask them to rate their personal educational experience at the university.

Perception of Stakeholders Related data	Inclusive education data			Survey Form Type	Questions	Item number A1	Item number A2	TOTAL Number of items
2)Program Data 2	Indicators of university/instructi on climate	Social dimension Indicators	Quality of interpersonal relationships between and among students with special needs, colleagues, teachers, and staff Indicators	A1&A2	To what extent do you agree to share the educative environment with students having disabilities or special needs?	2.11	3.13	
				A2	Rate your personal experience in your current education?		1.13	
TOTAL NUMBER OF ITEMS						1	2	3

Table 15: Perceptions of Program Data 2: Indicators of university Climate: Social dimension: Quality of interpersonal relationships.

Considering the main groups of strata the data related to the indicators of Quality of interpersonal relationships between and among students with special needs, colleagues, teachers, and staff was distributed as follow:

In the ISP and UES strata the level of agreement to share the education environment with students with special needs was the following: Level of agreement: to a small extent 3%, to a moderate extent 21%, to a great extent 7%, to a very great extent 69%. In the case of the UES the level of agreement was: not at all 6%, to a very small extent 10%, to a moderate extent 6%, to a great extent 10%, to a very great extent 39%, I don't know 5% and I don't want to answer 5%.

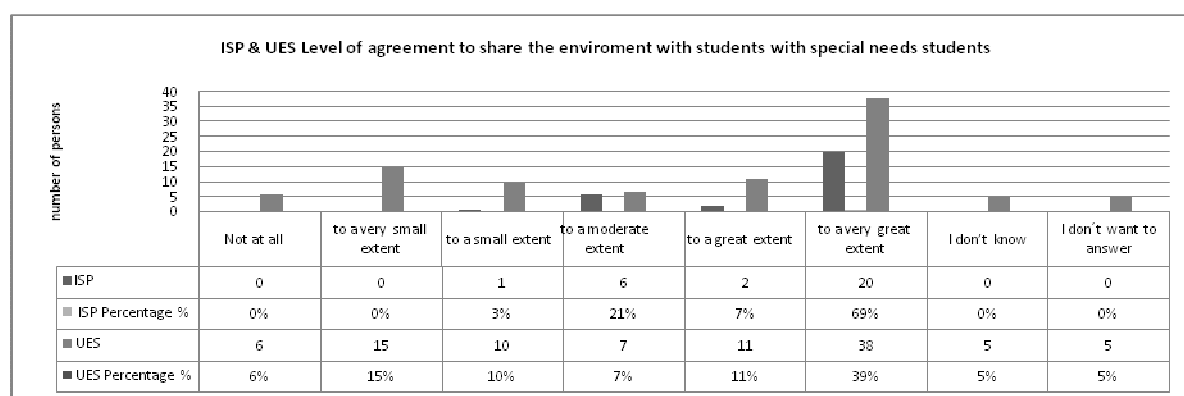


Table 16: ISP and UES Level of agreement to share the environment with special needs students.

In the UES strata when questioned about their experience in their current education dropped the next results: 26% excellent, very good 39%, good 30% and 5% acceptable.

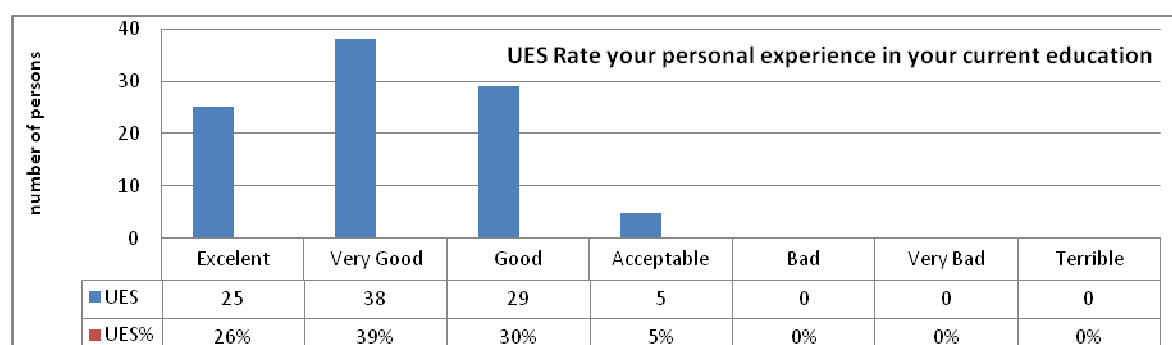


Table 17: UES personal experience of current education.

5.3.5 Discussion of Perception of the instruction climate

Considering the data dropped by the respondents which provide us a valuable insight from the users of the education system in order to have accurate indicators about the university/instruction climate by taking into account the following:

The ISP considered that the main concerns of services available for students with special needs were library special needs of resources and Mobility and accessibility in campus with 66% of the population very concern , followed by assistive technology and the provision of qualified support staff with 62 % of the population very concern and thirdly the faculty cooperation and training with 59% of the population very concern; Which is an indicator that the ISP population is highly aware of the general requirements for creating an inclusive environment for students with special needs and at the same time it means that the university is on the need of improvement or development in such areas.

The UES strata considered that the main concerns of services available for students with special needs were, mobility and accessibility in campus with 54% of the population very concern, followed by library special needs resources with 49% of population very concern and the provision of counseling for psychological and psychiatric issues with 47% of the population very concern. Which means according to the indicators that the students perceived that university is on the need of improvement or development in such areas in order to satisfy the necessities of the students. Is to note that in both strata the main concern was mobility and accessibility at the university facilities, as the environment adequacy is a factor that is essential for inclusion in education.

This previous findings are consequent with the data analyzed about the adequacy of accessibility and universal design features in the university infrastructure, which reported that in the ISP strata 62% of the population considered that the infrastructure is or not adequate at all or to a very small extent adequate; which mean that the ISP group is highly conscious of the necessities of providing an accessible environment for the students with special needs in general. In the case of the UES strata the results were almost mirrored with 59% of the population considering that the adequacy of the infrastructure is not adequate at all or to very small extent adequate for students with special needs in general. Therefore in the physical dimension there is a strong perception about the necessity of provision and improvement the

universal design features at the university along with library resources, psychiatric or psychology counseling for students and hiring of qualified special needs assistant staff.

Another indicators were those related to the social dimension of the instruction climate.

The analyzed data showed that in the ISP strata 76% of the population agreed on sharing the education environment with students with special needs at the university to a very great extent or to a great extent. Meaning that even though the great majority is in favor of inclusive practices at least 24% of the population have a different opinion.

In the UES strata 51% of the population of the population agreed on sharing the education environment with students with special needs at the university to a very great extent or to a great extent; While the other 49% were having or not an opinion or a negative attitude. Which is a strong indicator that sensitization of special needs has to be improved in both strata but mainly in the student population at the university.

Finally and in contrast the UES strata considered with 95% of the population that their personal experience in a the university was excellent or very good, while 5% considered it acceptable with no negative connotations. Therefore we can say that the social dimension of the university climate is favorable for the inclusion of students with special needs.

Nevertheless more work needs to be done in the sensitization of the student population to create an optimal environment for inclusion.

5.4 Perceptions of Institutional achievement towards inclusion.

5.4.1 Assessment of barriers , implementation of policies, competence and dissemination

The perceptions of institutional achievement towards inclusion were classified in groups of data which consisted in the assessment of barriers for inclusion by rating the extent of relevance of them; the perception of implementation of inclusive policies which consisted in a self-assessment of knowledge about policy, competence of ISP population for inclusive practices and dissemination of inclusive policy at the university.

The Perception of Institution Achievement Data 1 was organized in this manner: Indicators of achievement towards inclusion: Assessment of barriers and Implementation of international and national policies towards inclusion.

Perception of Stakeholders Related data	Inclusive Education Data		Survey Form Type	Questions	Item number A1	Item number A2	TOTAL Number of items
3)Institution achievement Data 1	Indicators of Institution achievement for inclusion	Assessment of barriers indicators	A1 & A2	Rate the extent of relevance of the following items as barriers for an effective Inclusive education implementation at your university: Need of knowledge about diversity and inclusion in education: Need of flexibility of the curriculum: Need of training on inclusive education of teachers and education leaders curriculum: Rigid and poor teaching methods: Inconvenient learning environment: Presence of special needs identification processes and adequate assessment procedures: Economic resources: Mobility and accessibility in campus: Transportation home-university-university-home:	4.1 4.2 4.3 4.4 4.5 4.6 4.7 4.8 4.9	3.1 3.2 3.3 3.4 3.5 3.6 3.7 3.8 3.9	
		Assessment of Implementation of international and national policies towards inclusion indicators	A1 & A2	To what extent the national policies and goals towards inclusion are met in the university? To what extent the international policies and goals towards inclusion are met in the university?	5.3 5.5	4.3 4.5	
		NUMBER OF ITEMS PER SURVEY TYPE			11	11	22

Table 18: Perception of Institution Achievement Data 1: Indicators towards inclusion: Assessment of barriers and Implementation of international and national policies

5.4.2 Assessment of barriers indicators

Considering the main groups of strata ISP the assessment of barriers, consisted in the measuring the level of relevance of the education environment elements as main barriers for inclusion. This indicators data were distributed as follow:

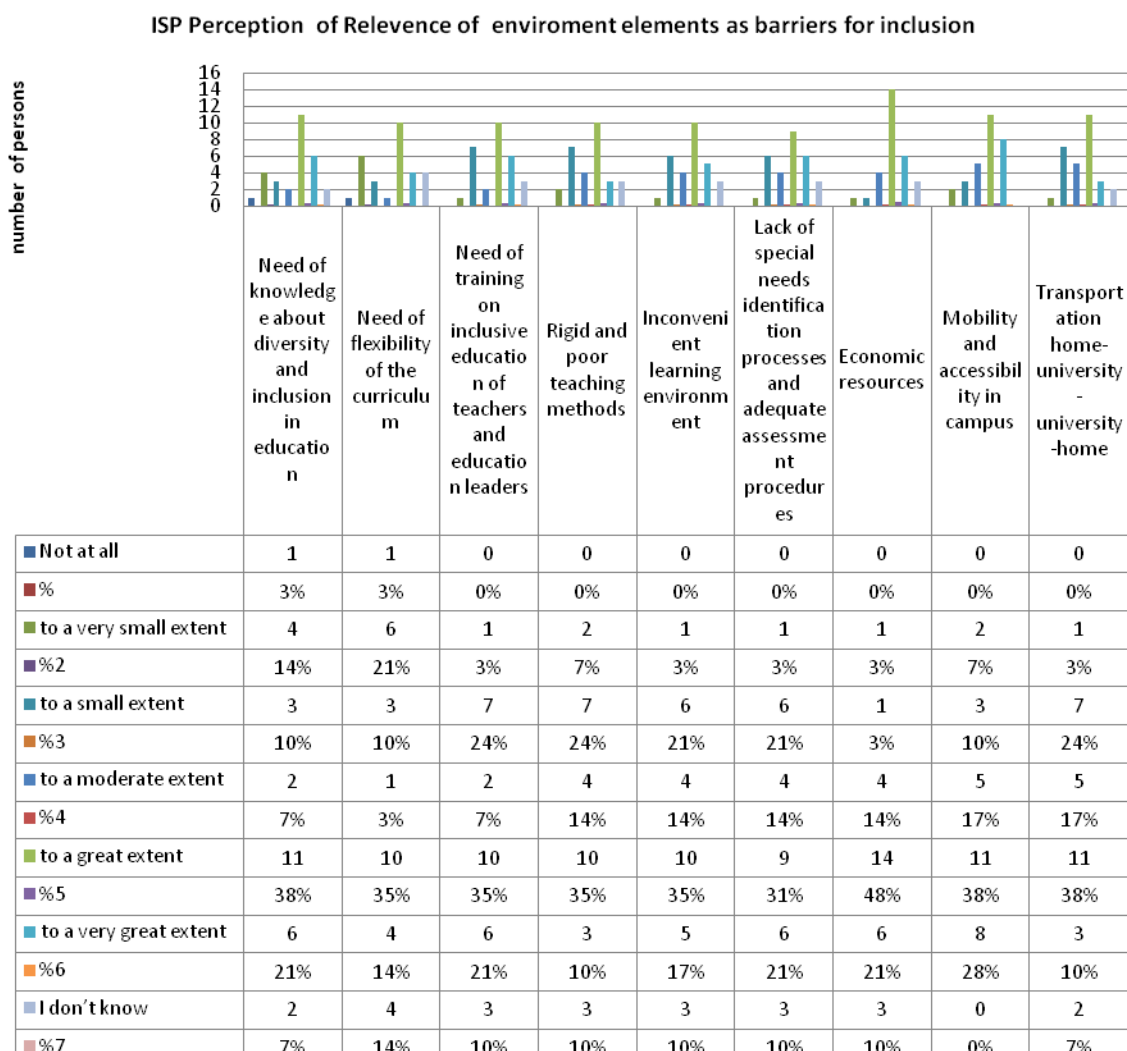


Table 19: ISP Perception of Relevance of environment elements as barriers for inclusion

Considering the main groups of strata UES the assessment of barriers indicators data were distributed as follow:

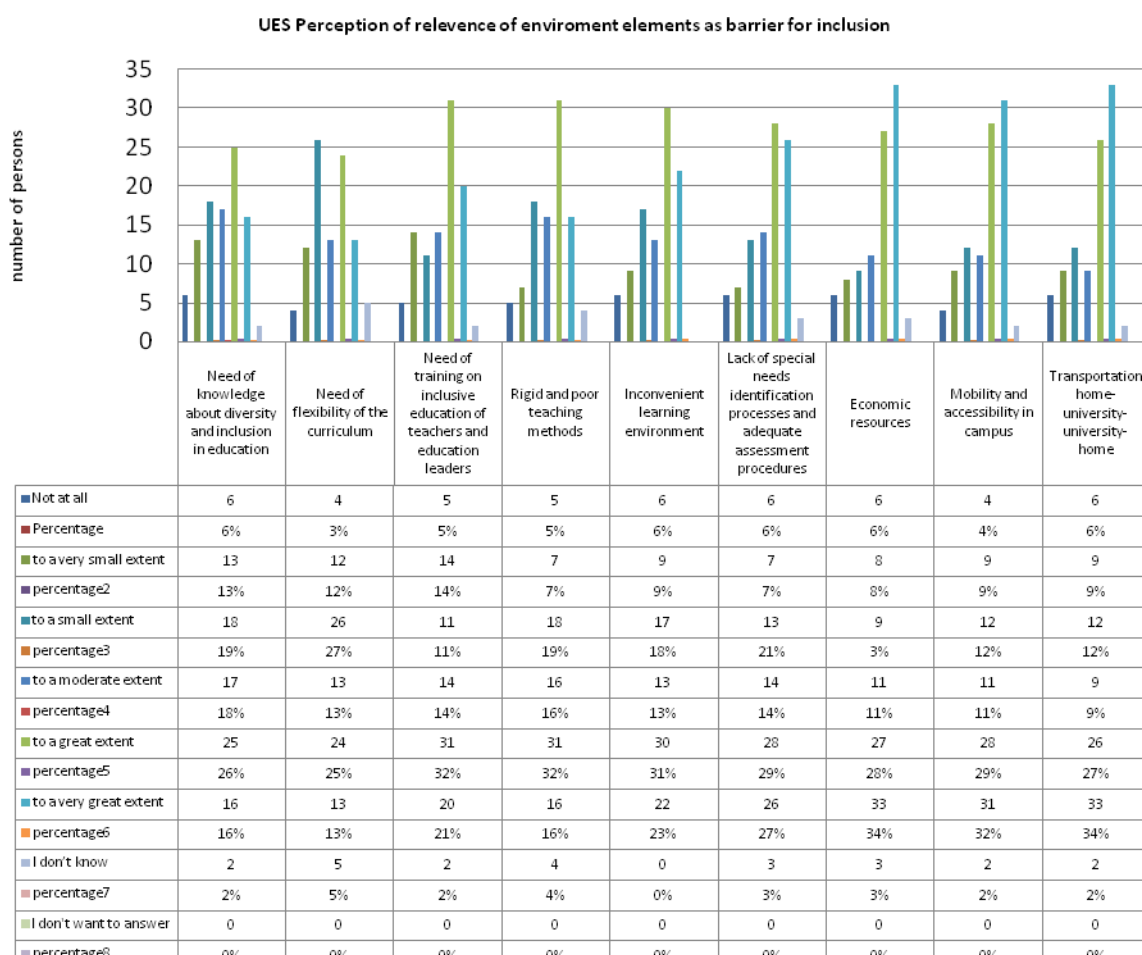


Table 20: UES Perception of relevance of enviroment as barriers for inclusion.

5.4.3 Implementation of international and national policies towards Inclusion

Considering the main groups of strata the data relative to the implementation of policies towards inclusion was distributed as follows for the ISP and the UES:

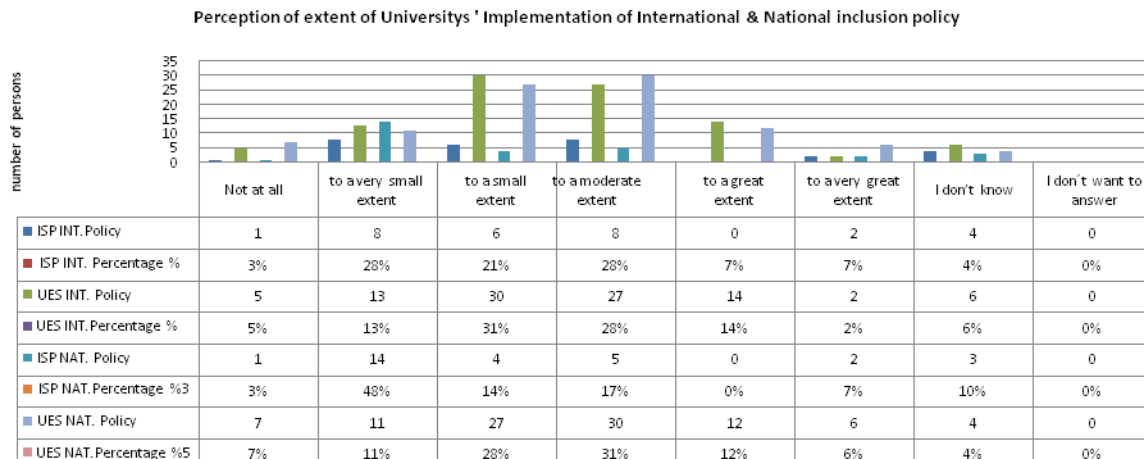


Table 21: Perception of university implementation of Int. and Nat. inclusion policy.

The Perception of Institution Achievement Data 2 was organized in this manner: Indicators of achievement towards inclusion: Assessment of Competence: Institutional competence: Service providers Competence, and Dissemination of Inclusion.

Perception of Stakeholders Related data	Inclusive education data				Survey Form Type	Questions	Item number A1	Item number A2	Number of items TOTAL
3)Institution achievement Data 2	Indicators of institution achievement for inclusion	Assessment of Competence for Inclusion Indicators	Institutional Competence	Internal Service providers Individual Competence (Self-assessment)	A1	To what extent you have the competence to provide effective assistance to students with special needs in order to better cope with their academic endeavors?	3.4		
				Training	A1	Did you receive any training or institutional assistance from the University in order to better cope with the special necessities of the students and what kind it was?	3.1-3.2		
						To what extent the assistance provided by the institution was useful to better cope with the students' special needs?	3.3		
					A2	Have you ever been receiving any kind of counseling, institutional assistance, special services or lessons related to your special needs in this university , what kind of support t it was and to what extent it was useful or adequate?		2.10, 2.12 2.13	
				Dissemination of inclusive practices	A2	Have you ever been receiving any kind of courses, lessons or information campaigns related or directed to the attention of the special needs of the students in this university?		2.13	
TOTAL NUMBER OF ITEMS							4	5	9

Table 22: Perception of Institution Achievement Data 2: Indicators of achievement towards inclusion: Assessment of Competence: Institutional competence: Service providers Competence, and Dissemination.

5.4.4 ISP Individual Competence

Considering the main groups of strata the data relative to Institutional competence towards inclusion was distributed as follows: In the ISP strata in order to gather data about their competence towards inclusion in education a self-assessment data collection approach was used and the results dropped were distributed like these:

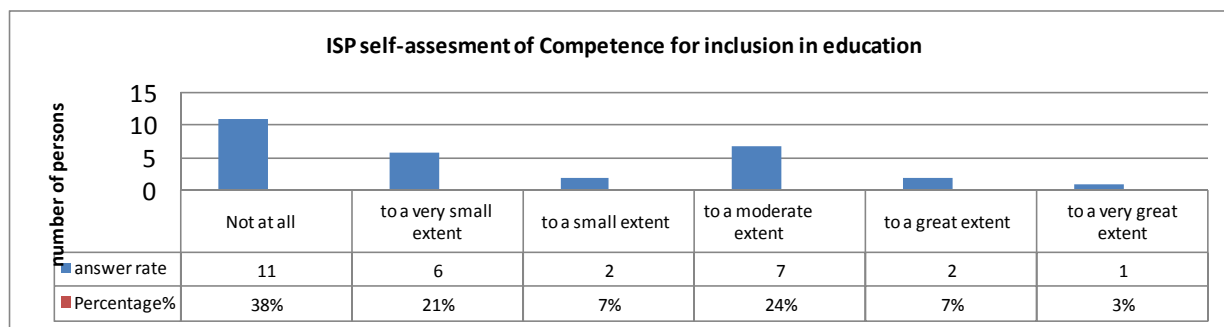


Table 23: ISP self-assessment of competence for inclusion in education.

5.4.5 ISP TRAINING

In the ISP strata from 29 persons (100%), three (10%) have been receiving training or institutional instruction directed to satisfy the special needs of students. In other words 90% (26 persons) have not received institutional training for inclusion. The type of institutional training received were the following: instruction in special education, course of first aid and CPR techniques, and a preparatory course for the care of people with disabilities. From those 3 ISP whom received institutional training (100%), two (67%) considered that the training was to a great extent useful and adequate to better fulfill the special necessities of the students, and one (33%) considered that it was useful and adequate to a very great extent.

In relation with the substrata of UES with special needs which were 14 persons (100%), 4 of them (29%) have been receiving counseling or institutional assistance or special services related to the attention of their special needs. Among the type of support received they declared the following: one (25%) received an academic outstanding achievement scholarship, two (50%) where channeled to the university medical Clinique for visual diagnosis and provision of aid devices and one (25%) received academic leveling courses. From them 3 (75%) considered that the assistance provided by the university was adequate and useful to a great extent for the attention of their special needs and one (25%) considered to a moderate extent adequate and useful.

5.4.6 Dissemination

Finally considering the UES strata, from 97 persons (100%), only eight (8%) have been exposed to institutional information like campaigns or conferences for the attention of the special needs of the students in general at the university. This is an indicator that the dissemination of inclusive policy is present but the impact is very limited.

5.4.7 Discussion of perceptions of Institutional achievement towards inclusion.

Considering the data dropped by the respondents which provide us a valuable insight from the university population in order to have accurate indicators about the university's Institutional achievement towards inclusion by taking into account the following:

The ISP strata perceived that the main barriers for inclusion were economic resources with 69% of the population whom considered it to a very great extent or to a great extent relevant, mobility and accessibility at campus with 66% of the population whom consider it to a very great extent or to a great extent relevant. Followed by the need of general knowledge about diversity and inclusion in education with 59% of the population whom consider it to a very great extent or to a great extent relevant, and closely followed by the need of training on inclusive education of teachers, staff and education leaders with 56% of the population whom consider it to a very great extent or to a great extent relevant. These results are strong indicators of the perception of the priorities the university must address in order to remove barriers for inclusive education practices.

The UES strata perceived that the main barriers for inclusion were economic resources with 62% of the population whom considered it to a very great extent or to a great extent relevant as a barrier for inclusion. Followed, by mobility and accessibility in campus and transportation home-university-university-home both with 61% of the whom consider it to a very great extent or to a great extent relevant respectively. Followed by the need of special needs identification processes and adequate assessment procedures with 56% of the population whom consider it to a very great extent or to a great extent relevant, closely followed by inconvenient learning environment with 56% of the population whom consider it

to a very great extent or to a great extent relevant as a barrier for inclusion. These results are strong indicators of the priorities the university must address in order to remove barriers for inclusive education practices. It is to note that in both strata the perception of main barrier for inclusion where the economic resources followed by mobility and accessibility in campus. This data is reinforcing the perception that such aspects are highly relevant for the population of the university as barriers to be tackled in pro of inclusive practices.

In the ISP and UES strata the perception of the extent of implementation of international and international policies towards inclusion at the university dropped the next findings:

International policy: 52% of ISP population considered that the policy implementation was to a very small or to small extent or not at all implemented. While the UES population 49% considered that the policy implementation was to a very small or to small extent or not at all implemented.

National policy: 65% of ISP population considered that the policy implementation was to a very small or to small extent or not at all implemented. While the UES population 59% considered that the policy implementation was to a very small or to small extent or not at all implemented. This data provide us a valuable insight about the state of the institutional achievement by letting us know the limited success from the institution implementing policies related to inclusion in education.

The competence for inclusion data as indicator of institutional achievement for inclusion was retrieved through a self assessment of the ISP strata were 66% declared not to have the competence for providing education in an inclusive setting. While 28% declared to have to a very small extent or to a small extent the competence. In contrast only the 10% of the population declared to have to a great extent or to a very great extent the competence for providing inclusive education. This signifies that there is an urgent need of training from the ISP population so they can provide a better education for students with special needs. This idea is supported by the data achieved in the training section of the questionnaire where the ISP population declared that only the 10% of them have been receiving institutional training for inclusion. It is important to note that from those whom received training, the perception of the usefulness and adequacy of training in pro of students with special needs was positive as 67% considered it to be to a very great extent adequate and 33% to a great extent adequate. That can be read as that the quality of training is not an issue but the coverage of training at the university. Finally in the UES strata we found that the dissemination of inclusive policies and

practices hasn't impacted the majority of population as only 8% of them declared to have been exposed to institutional information or informative campaigns targeted for the attention of the special needs of the student. Therefore we can say that the institutional achievement towards inclusion is relatively weak but we can perceived that is an ongoing issue were the ISP population is relatively aware of the necessities of the students with special needs in general.

5.5 Policy knowledge towards inclusion: International, National and Institutional

5.5.1 Perceptions of Policy Data

The perceptions of knowledge of policy towards inclusion were classified in three categories depending type of policy: International , National and Institutional. The method to achieved such data was a simple self-assessment of knowledge of policy. The data was organized as described in the following chart:

Perception of Stakeholders Related data	Inclusive Education Data			Survey Form Type	Questions	Item number A1	Item number A2	TOTAL Number of items
4)Policy Data	Indicators of Policy knowledge towards inclusion	Policy Awareness (self-assessment)	International Policy	A1 &A2	To what extent are you aware of the International policies towards inclusive education?	5.4	4.4	
			National Policy	A1 & A2	To what extent are you aware of the policies for inclusive education in Mexico?	5.1	5.2	
			University policy	A1&A2	To what extent are you familiarized with the policies towards inclusion at the university?	5.2	4.2	
NUMBER OF ITEMS PER SURVEY TYPE						3	3	6

Table 24: Perception of Policy Data: Indicators of Policy knowledge towards inclusion: International, national and institutional policy awareness self-assessment.

5.5.2 Policy Knowledge

Considering the ISP and UES strata and in order to gather data about their knowledge related to international national and institutional policies towards inclusion in education a self-assessment approach was used. We asked the researched population the extent of awareness they have of the International, national and institutional policy for inclusion in education. The results dropped were distributed as follow:

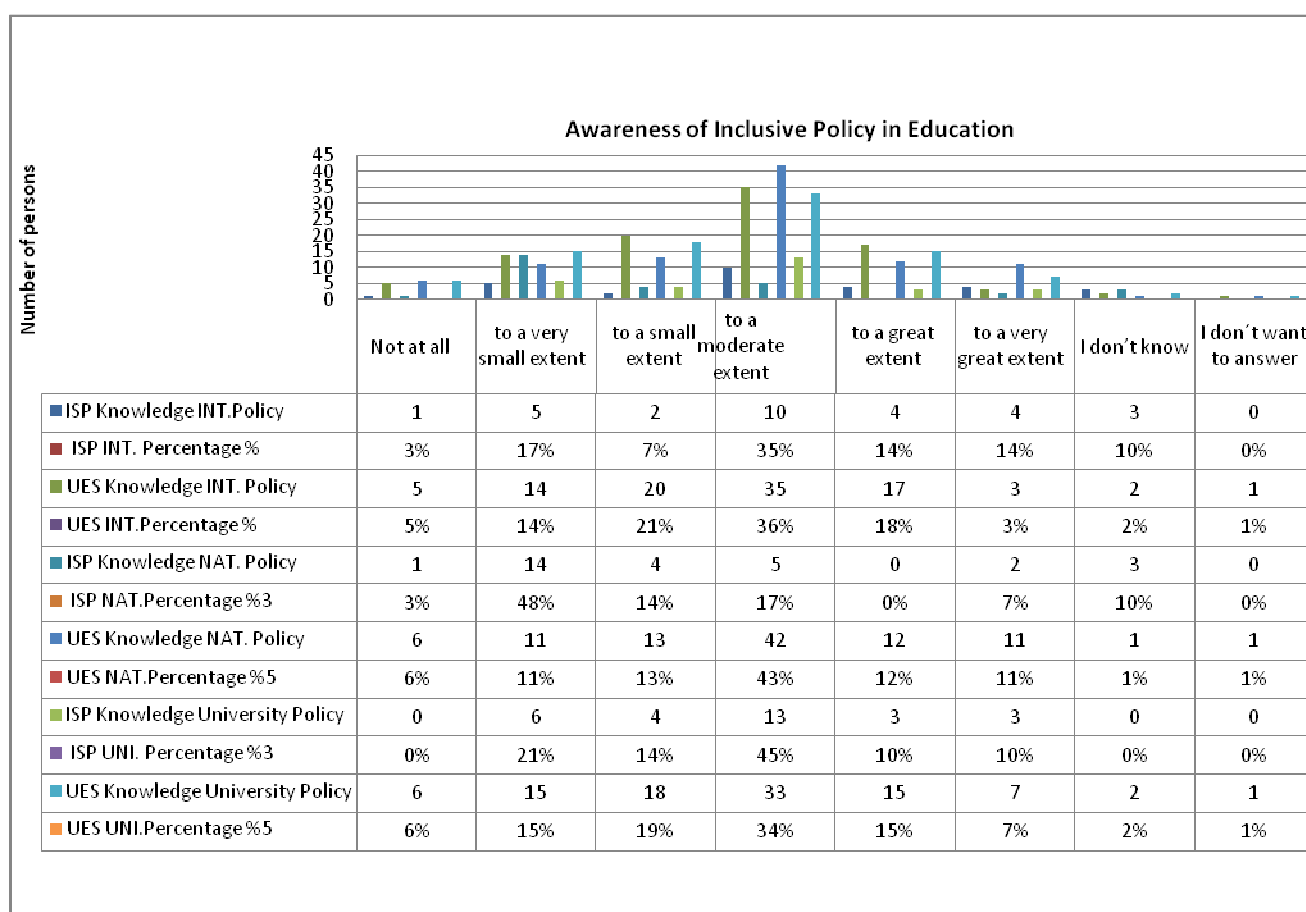


Table 25: Awareness of inclusive policy in education.

5.5.3 Discussion of Policy knowledge towards inclusion

Considering the data dropped by the respondents which provide us a valuable insight from the users of the education system in order to have some indicators about the awareness of the university population of policy related to inclusion in education.

In the ISP and UES strata their self-assessment of the extent of knowledge of international and national and institutional policies towards inclusion dropped the next findings:

International policy: 35% of ISP population considered to have knowledge about inclusion policy to a moderate extent followed by 28% of the population whom considered to have knowledge to a great extent or to a very great extent. While the UES population 36% considered to have knowledge about inclusive policy to a moderate extent followed by 34% of the population whom considered to have knowledge to a very small extent or to a small extent considered that their policy knowledge was to a very small or to small extent achieved.

National policy: 62% of ISP population considered to have knowledge about inclusion policy to a very small or to small extent followed by 17% of the population whom considered to have knowledge to a moderate extent. While the UES population 43% considered to have knowledge about inclusive policy to a moderate extent followed by 24% of the population whom considered to have knowledge to a very small extent or to a small extent.

Institutional policy: 45% of ISP population considered to have knowledge about inclusion policy to a moderate extent followed by 35% of the population whom considered to have knowledge to a very small extent or to a small extent. While in the UES population 34% considered to have knowledge about inclusive policy to a moderate extent, and other 34% declared to have knowledge to a very small extent or to a small extent, followed by 22% of the population whom considered to have knowledge to a great extent or to a very great extent.

Therefore we can say that the policies directed to foment inclusion in education are not well known in the university population, making it urgent to disseminate such knowledge through all the university community.

6 Summary and Conclusions

6.1 Introduction

The current chapter reflects the results and findings of the survey study and draws the final lines between the research question, theoretical perspectives and data analysis that are described in previous chapters. It also gives recommendations based on the obtained results for further research or improvement of the inclusive practices in higher education in general and at the higher education studied within the scope of this research.

The main research question of this study is stipulated in chapter one, which aimed to obtain students and stakeholders' opinions about knowledge and practical experiences related to the field of inclusive education in tertiary levels. The insight opinions of the university population are a valuable asset to better know the state of inclusive education in any institution.

According to Pace there is evidence that higher education students are conscientious and generally accurate reporters about their activities, that they express their opinions and satisfactions forthrightly, and that their judgments of what they have gained are consistent with external evidence (as cited in Donald and Denison, 1996, p. 25). Therefore the data was gathered through an online survey created specifically for the purpose of obtaining relevant information about the perceptions of inclusive education practices and experiences of specific sectors of the university population. Thus, percentages, proportions and relative frequencies are the main indicators used to reflect the strength of particular themes and perceptions gathered. The findings were mainly classified using the basic inclusive education dimensions (Clark, Dyson, Millward, 1995; Buli-Holmberg & Sujathamalini, 2009), and described according to the theoretical and political framework from the first, second and third chapters. The dimensions used are the policy dimension, the organizational dimension, the teacher development dimension, the resources dimension and the values dimension. The results dropped give a general but revealing view of such inclusive practices at a higher education institution.

6.2 Stakeholders perceptions of practicing education policy for inclusion of students with special needs in Higher Education

The inclusive education dimensions (Clark, Dyson, Millward, 1995; Buli-Holmberg & Sujathamalini, 2009), allowed us to categorize the findings acquired to produce knowledge of the inclusive practices from the stakeholders experiences at the UNAM. For the purpose of this study only the strongest indicators were considered. The stakeholders were referred as the ISP (Internal Service Providers). The ISP strata were constituted by academic and administrative staff currently working at the university.

The policy dimension

A relative majority of ISP population perceived that the international policies directed for inclusion at the university are scarcely met at the university. While in the case of the national policy the stakeholders perceived that those policies are poorly met. In both cases their perceptions reflect that inclusive policy is existent and partially implemented at the university. This can be read in two ways. In one hand we can affirm that even though the international and national policies directed for inclusion of students with special needs were perceived as not fully met at the university, in the other hand we can also affirm that such policies are present in the education environment to a certain limited extent.

The knowledge of the ISP population about policies directed towards inclusion was for international policies poor, for national and institutional policies moderate. This is an indicator that the dissemination of inclusive practices in education needs to be improved among the employees.

The organizational dimension

69% of the ISP population perceived that one of the main institutional barriers for an effective implementation of inclusive education at the university is the lack of economic resources. This is an indicator that the funding for the attention of the special needs of students has to be reviewed in order to produce more perceptible outcomes. 66% of the population also

considered that mobility and accessibility for people with special needs at the university is one of the most relevant barriers to be addressed. This is an indicator that the features of universal design need to be reviewed. While 56% of the population perceived that the lack of training on inclusive education for academic, administrative and education leaders at the university is highly relevant as an institutional barrier for inclusion at the university. This data not only reflect the perception of necessity for training of university employees but also about their self-awareness of the importance of training for inclusion. A majority of the ISP population (51%) declared to have been providing professional services or lessons to students with special needs. Their perception of the most common type of special needs they have been giving attentions are Orthopedic and mobility disabilities (26%), blindness (23%), limited vision (12%) and learning disabilities (12%).

The resources dimension

From services available for students with special needs: 66% were concern about the mobility and accessibility at the university. Also 66% were concerned about the provision of assistive technologies for students with special needs. 62% were concerned about the provision of qualified support staff. While 59% were highly concern with the faculty cooperation related with the special needs of students. This is an indicator that the ISP population is to some extent aware of the general requirements for creating an inclusive environment for students with special needs and at the same time it means that the university is on the need of improvement or development in such areas.

86% of the ISP population perceived that the university infrastructure features are inadequate for the attention of the special needs of the students. This is another indicator that the features of universal design in the university need to be reviewed.

The Service Providers development dimension

Only 10% of the population perceived that they have the competence for inclusion in education. Supporting such findings 66% of the population perceived that they are not competent for inclusive education practice.

In matters of training 10% of the population declared to been receiving institutional training for inclusion in education, which means that 90% of the ISP population have not. From those

whom declared to have received training 67% perceived that the training was useful and adequate. This supports the perception of necessity for training for inclusion expressed in the previous paragraph and also reflects that the quality of the training received is not an issue but the low coverage of the institutional training.

The values dimension

A significant majority of the ISP population (78%) positively agrees to share the education environment with students with special needs. This is a strong indicator of the ISP positive predisposition for inclusive practices in the education environment.

A majority of the population (59%) perceived that the lack of general knowledge about diversity and inclusion in education are a relevant barrier for inclusion at the university. This is an indicator that the dissemination of inclusive practices needs to be improved among the community.

6.3 Students experiences of practicing inclusion in Higher Education

In this section the education dimensions were used (Clark, Dyson, Millward, 1995; Buli-Holmberg & Sujathamalini, 2009). They allowed us to categorize the findings acquired to produce knowledge of the inclusive practices from the students' experiences at the UNAM. For the purpose of this study only the strongest indicators were considered. The students were referred to as the UES (Users of the Education System). The UES strata was constituted by students with and without special needs currently enrolled at the university.

The policy dimension

A relative majority of UES population perceived that the international policies directed for inclusion at the university are scarcely met at the university. While in the case of the national policy the students perceived that those policies goals are poorly met. In both cases the perception was that inclusive policy is present but partially implemented at the university. Their own perception of the knowledge of the UES population about policies directed towards inclusion revealed that international policies is poor, for national policies moderate and for institutional policies poor. This is an indicator that the dissemination of inclusive practices in education needs to be improved among the student population.

The organizational dimension

62% of the UES population perceived that one of the main institutional barriers for an effective implementation of inclusive education at the university is the lack of economic resources. This is a relatively strong indicator that the funding for the attention of the special needs of students has to be reviewed in order to produce more perceptible outcomes. 61 % of the population also considered that mobility and accessibility for people with special needs at the university is one of the most relevant barriers to be addressed. This is an indicator that the features of universal design need to be reviewed. Also 61% of the UES perceived the need of transportation home-university-university-home base one of the main barriers for inclusion. While 56% of the population perceived that the need of identification process for the detection of the special needs of students is one of the most relevant barriers. Also with 56% considered that the inconvenient learning environment for students with special needs is an important institutional barrier for inclusion. These are indicators of the most relevant aspects that need to be addressed by the institution according to the students. 95% of UES considered that their personal educational experience at the university is highly positive. This is a strong indicator of student as part of a learning community.

From the UES population with special needs 29% declared to been receiving counseling or institutional assistance or special services related to the attention of their special needs. The students with special needs declared that their current special needs were related to limited vision with (79%), deafness (7%), orthopedic and mobility related necessities (7%) and gifted or talented students related necessities (7%). From those 75% of the UES population with special needs considered that the assistance provided by the institution was adequate and useful.

The resources dimension

From services available a relative majority with 54% of the UES population was concerned about the mobility and accessibility for students with special needs. 49% were concerned about library special needs resources and 47% were concerned about the provision of counseling for psychological and psychiatric issues. This is an indicator that the UES population is to some extent aware of the general requirements for creating an inclusive environment for students with special needs and at the same time it means that the university is on the need of improvement or development in such areas. 73% of the UES population perceived that the university infrastructure features are inadequate for the attention of the special needs of the students. This is another indicator that the features of universal design in the university need to be reviewed. 8% of the UES populations have been exposed to institutional information or campaigns for the attention of the special needs of the students in general at the university. This is an indicator that the dissemination of inclusive policy is present but the impact on the population is very limited.

The values dimension

A simple majority of the UES population (51%) positively agrees to share the education environment with students with special needs. This is an indicator that the UES predisposition for inclusive practices needs to be improved. While 42% of the population perceived that the lack of general knowledge about diversity and inclusion in education is a relevant barrier in the university. This is an indicator that the dissemination of inclusive practices needs to be improved among the community.

6.4 Perception of practicing the educational policy towards inclusion in higher education in UNAM in Mexico

For the purpose of this analysis of findings the educational theory used was the following: the inclusive education dimensions (Clark, Dyson, Millward, 1995; Buli-Holmberg & Sujathamalini, 2009), the instruction climate (Loukas, 2007), universal design (Buli-Holmberg & Sujathamalini, 2009), accessibility (Litman, 2011), mobility (Mollenkopf et al. 2005; Hansen 1959; Engwicht 1993), community of practice (Wenger, 2007), social inclusion (Gidly et al 2010), and cultural competence (Cross, T., Bazron, B., Dennis, K., and Isaacs, M., 1989) along with political documents related to inclusive policy in general and in education such as the Inter-American Agreement for the Elimination of all Forms of Discrimination Against People with Disabilities. (OEA, 1999), Convention on the Rights of Persons with Disabilities (UNESCO, 2006), Declaration of Yucatan on the Rights of Disabled University Students (UNAM & UCM, 2008) and the General Law for the inclusion of disabled persons, (Mexican Government, 2011). The perceptions of practicing the educational policy towards inclusion in higher education were obtained from the ISP and UES strata which together are going to be referred as the University Community (UC) for descriptive purposes. Nevertheless the UES and ISP denomination was used for descriptive purposes when needed.

Policy dimension

Summary

A relative majority of the UC (University Community) perceived that the national policies directed for inclusion in education are scarcely met at the university. While in the case of the national policy they perceived that those policies and goals are also poorly met. In both cases their perceptions reflect that inclusive policy is existent and partially implemented at the university. This can be read in two ways. In one hand we can affirm that even though the international and national policies directed for inclusion of students with special needs were

perceived as not fully met at the university, in the other hand we can also affirm that such policies are present in the education environment to a certain limited extent.

The self-assessment of knowledge of the UC population about policies directed towards inclusion was for international policies poor, for national and institutional policies moderate tending to poor. This is an indicator that the dissemination of inclusive policies and practices in education needs to be improved among the whole of the University Community.

If we consider that the policy dimension in inclusive education involves international, national and local policies and its relation with practice in the learning environment at institutional level (Clark, Dyson, Millward, 1995). The policy directed to the inclusion of students with special needs in higher education is existent at the UNAM. This can be inferred from the legal documents or legislation at International and national level signed by the Mexican government which indirectly affect the university institutional policies towards inclusion by establishing a minimum legal framework for inclusion in education and the declarations signed by the UNAM at inter-institutional level.

It is a fact that the most relevant document in pro of inclusion in education at International level is the Inter-American Agreement for the Elimination of all Forms of Discrimination Against People with Disabilities. (OEA, 1999). This law due its new paradigmatic approach towards inclusion was used as a framework to develop the final text of the Convention on the Rights of Persons with Disabilities (UNESCO, 2006). At the same time this convention served as a legal framework for the Declaration of Yucatan on the Rights of Disabled University Students (UNAM & UCM, 2008), which is a bilateral document among two state universities: The UNAM and the Universidad Complutense de Madrid (UCM) . In this Yucatan declaration both universities express their institutional commitment to adhered their institutional policies towards inclusion in accordance with the Convention on the Rights of Persons with Disabilities (UNESCO, 2006). Finally the General Law for the inclusion of disabled persons, (Mexican Government, 2011), was also inspired by the Convention on the Rights of Persons with Disabilities (UNESCO, 2006). It is a binding national law affecting directly the educational policies and educative institutions all over the country, including the UNAM. Therefore we can perceive that there is no need to produce more legislation directed for inclusion in education. In contrast there is a tangible lack of knowledge about inclusion in general at the University. In spite of this the dissemination of inclusive policies and practices

in education has to be improved among the whole of the University Community (UC). From the policy dimension perspective we can say that the institution is competent for inclusive practices.

The organizational dimension

Summary

The UC perceived that the main institutional barrier for an effective implementation of inclusive education at the university is the lack of economic resources. This is a strong indicator that the funding for the attention of the special needs of students has to be reviewed in order to produce more perceptible outcomes. Among the other most relevant barriers in order of importance perceived by the great majority of the UC we have: mobility and accessibility at the university. This is a strong indicator that the features of universal design in the university need to be reviewed. Other relevant barrier perceived is transportation for students with special needs home-university- university-home. This is a strong indicator that accessibility and mobility are still an issue for inclusion at the university. Other perceived barrier in the institution was the necessity of identification processes of the special needs of the student. This indicates that there is a lack of effective identification processed of the special needs of the students at the university. Another relevant barrier perceived is the lack of training on inclusive education practices of academic staff, administrative personnel and leaders of the university. This is an indicator that more inclusive education related training is needed for the employees at the university. Finally but not least the UC perceived the learning environment is inconvenient for students with special needs.

A simple majority (51%) of the ISP population declared to have been providing professional services or lessons to students with special needs at the university. While only 29% of the UES population with special needs declared to have been receiving institutional assistance or special services related to the attention of their special needs. This is a relatively strong indicator that the coverage of institutional assistance for students with special needs has to be improved. From those whom received institutional assistance of the UES population with special needs 75% considered that the assistance provided by the institution was adequate and useful. This is an indicator that the quality of the assistance provided is not an issue but the coverage of the assistance itself.

The UES perception of the most common type of special needs they have been giving attentions to, are Orthopedic and mobility disabilities (26%), blindness (23%), limited vision (12%) and learning disabilities (12%). That is consequent with the opinion of the UES students with special needs whom declared that their current special needs were related to limited vision with (79%), deafness(7%), orthopedic and mobility related necessities (7%) and gifted or talented students related necessities (7%). These results are strong indicators of the priorities the university must addressed in order to remove barriers for the benefit of inclusive education practices. Is to note that in the UC the general perception of main barrier for inclusion where the economic resources followed by mobility and accessibility in campus. This data is reinforcing the perception that such aspects are highly relevant for the population of the university as barriers to be tackled in pro of inclusive practices. Finally 95% of UES population considered that their personal educational experience at the university is highly positive.

If we consider that the organizational dimension refers to the characteristics that enable the institution to respond to diversity (Clark, Dyson, Millward, 1995). The findings obtained from the perceptions of the University Community are to a great extent significant. The UC perceived that the lack of enough economic resources is the main institutional barrier. More revealing was the perception of the subsequent institutional barriers perceived: mobility and accessibility related issues, transportation home-university- university-home, inconvenient learning environment for special needs students, the necessity of better identification processes of the special needs of the student and finally but not least the perception of lack of training on inclusive education practices of academic staff, administrative personnel and leaders of the university. As we can see among the main perceived barriers are those directly related to mobility and accessibility. Therefore if we take into account that mobility is a prerequisite not only for obtaining essential commodities and consumer goods , but also a prerequisite for societal participation (Mollenkopf et al. 2005) and that accessibility can be defined as the potential for interaction and exchange (Iwarsson and Ståhl 2003). We can say that the mobility and accessibility aspects of the university infrastructure are extremely important issues that must been addressed in order to make possible an effective inclusion of students with special needs. So the population with special needs can have effective access to education. Hence the institutional response to diversity can be considered to be far from

perfect due the constant direct reference from the UC of mobility and accessibility at the university as one of the main institutional barriers for an effective implementation of inclusive practices. Also the perception that the lack of economic resources perceived as the most relevant barrier for inclusion at the university is a strong indicator that the expenditure directed for the attention of the special needs of the students needs to be reviewed in order to produce more perceptible outcomes. Finally but not least the UES population considered that their personal educational experience at the university is highly positive. This is a strong indicator of students' belongingness of a learning community (Wenger, 2007). From the institutional organizational dimension perspective we can say that the institution is partially competent for inclusion in education practices.

The resources dimension

Summary

From services available at the university for students with special needs the majority of the UES population was concerned about the mobility and accessibility resources for students with special needs. Followed by their concerned about library special needs resources and the provision of counseling for psychological and psychiatric issues. While in the case of the ISP population their main concerns about institutional resources available for students with special needs were perceived like this: The main concern was the mobility and accessibility at the university , their second main concern was the provision of assistive technologies for students with special needs, followed by the concern about the provision of qualified special needs support staff and their concern about the faculty cooperation related with the special needs of students. In both cases the perceptions of the ISP and UES strata are consequent with each other despite the differences. That fact reinforces the strength of their perceptions about the state of resources available for an inclusive practice in education.

73% of the UES population perceived that the university infrastructure features are inadequate for the attention of the special needs of the students; while 86% of the ISP population perceived that the university infrastructure features are inadequate for the attention of the special needs of the students. Both are strong indicators that the features of universal design in the university need to be reviewed. Only 8% of the UES population declared to have been exposed to institutional information or campaigns for the attention of the special needs of the

students in general at the university. This is an indicator that the dissemination of inclusive policy is present but the impact on the population is very limited.

If we considered that the resources dimension refers on how human and material resources are managed to promote inclusion (Clark, Dyson, Millward, 1995). The current findings are clear indicators about the state of the resources dimension at the university. From the UC (University Community) we perceived a high degree of concern for the resources available for students with special needs. Their main concerns in order of relevance were: mobility and accessibility resources, library special needs resources, assistive technology resources, counseling for psychological and psychiatric issues of students, qualified special needs support staff and faculty cooperation related to the attention of students with special needs. Those finding are consistent with the findings registered in previous section specially those related to mobility and accessibility, which reinforces the perception of the necessity of review the features of universal design at the university, including the library and provision of assistive technology in order to provide effective access to the special needs population. Also the perception about the necessity of qualified special needs support staff and improvement of the faculty cooperation related to the attention of students with special needs are important to be noticed, as the lack of a proper collaboration between the professoriate, special needs educators and central administration are considered by specialist in education as a key barrier on its own to improve the delivery of education services in a mainstream context (Phillips and McCullogh, 1990; Pugach and Jhonson, 1989. Weson, 1990; Ysseldyke, Thurlow, Wortuba, and Nania, 1990 as cited in Ware,1995, p127). The perception of concern about the provision of counseling for psychological and psychiatric is also relevant as it is the expression of a current necessity of the UC.

The UC consistently and strongly perceived that the university infrastructure features in general are inadequate for the attention of the special needs of the students. This is a strong indicator that the university instruction climate on its physical dimension is not fully adequate for the learning experience of students with special needs (Loukas, 2007).

Therefore faculty collaboration, along with the revision of universal design features are aspects not to overlook in order to change positively the current configuration of the inclusive practices at the university. Finally only 6% of the UC declared to have been exposed to institutional information or campaigns for the attention of the special needs of the students in

general at the university. This is an indicator that the dissemination of inclusive policy is present but their impact on the population is very limited. From the institutional resources dimension perspective we can say that the institution is partially competent for inclusive practices.

The Institutional Service Providers development dimension

Summary

Considering that Only 10% of the ISP population perceived that they have the competence for inclusion in education, and that in support of such findings the majority of the ISP population (66%) perceived that they are not competent for inclusive education practice, we can say that the university in matter of human resources for inclusion is limited. This is consequent with the findings in previous sections about the necessity for training and special needs support staff. In matters of training 10% of the ISP population declared to been receiving institutional training for inclusion in education, which means that 90% of the ISP population has not. From those whom declared to have received training 67% perceived that the training was useful and adequate. This supports the perception of necessity for training for inclusion expressed in the previous paragraph.

If we considered that the Institutional Service Providers development dimension is about the competence of service providers to respond in a positive way towards diversity in the learning environment (Clark, Dyson, Millward, 1995), we can say that the ISP population is partially competent for inclusion in education in general. Therefore we can also affirm that the institution is partially competent for inclusion in education from the human resources perspective. Despite of this, that condition can be read as a positive indicator of the capacity of self-assessment from the ISP population by recognizing their own limitations. We must remember that the competence perception was gathered thru a self-assessment. And according to Cross, T., Bazron, B., Dennis, K., and Isaacs, M. (1989) having the capacity of self-assessment for cultural competence is one of the essential elements that can contribute to an institutions ability to become more culturally competent. This also signifies that there is an urgent need of training from the ISP population so they can provide a better education for students with special needs. This idea is supported by the data achieved in the training section of the questionnaire were the ISP population declared that only the 10% of them have been receiving institutional training for inclusion. It is important to note that from those whom

received training, the perception of the usefulness and adequacy of training in pro of students with special needs was positive as 100% considered it to be useful and adequate for the attention of the special needs of the students. That can be read as that the quality of training is not an issue but the coverage of training for inclusion at the university. From the Institutional Service Providers development dimension we can say that the institution is partially competent for inclusive practices.

The values dimension

Summary

The majority of the UC population (72%) positively agrees to share the education environment with students with special needs. 61% of the UC population perceived that the lack of general knowledge about diversity and inclusion in education is a relevant barrier for inclusion at the university. This is an indicator that the dissemination of inclusive practices needs to be improved among the community.

If we consider that the values dimension can be seen as a philosophical approach towards human rights, non-discriminatory practices and the use of concepts towards diversity (Clark, Dyson, Millward, 1995), the current findings are clear indicators about the state of the values dimension at the university. The University Community (UC) has a positive attitude in general towards sharing the education environment with students with special needs. This is a strong indicator of the institution positive predisposition in general for inclusive practices in the education environment. The UC population also perceived that more knowledge about diversity in education is required, which can be read as an indicator that the dissemination of inclusive practices needs to be improved among the community. Those perceptions also have a positive implication as they show that the UC is aware of the need of knowledge about inclusion in education. The improvement of knowledge about inclusive practices can affect positively the university climate on its social dimension, which is about the quality of interpersonal relationships between and among students, academic and administrative staff, with an equitable and fair treatment of students (Loukas, 2007). Therefore we can say from the values perspective that the university is almost competent for inclusion in education. Finally, derived from the findings gathered in this study we can perceived that the UNAM has

partially implemented the international, national and institutional policies for the inclusion of students with special needs on several of the inclusive education dimensions. Hence we can say that the UNAM is in a pre-competence cultural stage in relation with the practice and policy implementation of inclusive education for students with special needs (Cross, T., Bazron, B., Dennis, K., and Isaacs, M. 1989). Considering the long history of the university, and the relatively recent creation of the policy towards inclusion, we can also affirm that these findings are a positive indicator that the institution is on the transitional stage from cultural blindness to cultural competence (Ibid.)

6.5 Implications for the future

Implications for research

This study is one of the few done in matters of perception of practice and policy in a higher education institution focusing in the inclusion of students with special needs in Mexico. Even though our findings were relevant, they are context specific, and also limited. Therefore further research must be done in order to improve the knowledge and understanding of the studied matter. This are our recommendations for future research:

- Qualitative and quantitative longitudinal research of perceptions and practice of inclusive policy in higher education institutions in order to measure the improvement or regression towards inclusion of the studied organizations.
- Qualitative and quantitative research of the perceptions and practices of inclusive education policy from a pedagogical and curricular dimension.
- Qualitative and quantitative longitudinal research to investigate the relationship between academic performance and inclusive education, in order to assess the academic impact of inclusion.
- Qualitative and quantitative research to find out what are the main barriers for faculty cooperation for the attention of the special needs of the students.
- Qualitative and quantitative research to study the relationship between economic resources and functional inclusive education practices in education

Implications for practice

Even though the current findings of our study have clear implications for practice, they are context specific. Despite of this the following implications for practice drawn from the outcomes of our study are these:

- The assessment of barriers for inclusion at higher education institutions needs to be periodically implemented in order to detect progression or regression in the implementation of inclusive practices.
- A system for the identification and detection of the special needs of students is required in order to focus the resources where they are need it the most.
- A periodical revision and assessment of the universal design features is necessary to ensure accessibility.
- Periodical monitoring and assessment of faculty cooperation for the attention of the special needs of the students is recommended.
- An office in charge of dissemination of inclusive practices is required in order to increase the knowledge of inclusive practices and policies in the higher education institutions.
- Compulsory training for inclusion in education is necessary to improve the internal service providers' competence for inclusion.

6.6 Limitations of the study

A number of caveats need to be noted regarding the present study. The most important limitation lies in the fact that the extension of this project was far more voluminous than expected; having direct repercussions in the final selection of the data analyzed as not all the data retrieved from the respondents was used in the findings. Due this same reason the analysis of data was limited to the utilization of percentages, proportions and relative frequencies exclusively. Another important limitation is the fact that the results of the research were mainly based on the perception and experiences of respondents which are subjective, and by consequences not necessarily represent the reality. Therefore this study is context specific; and due a relatively small sample size, caution must be applied, as the findings might not be transferable to the whole of the population at a first glance.

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Appendices

Appendix 1

template SNE SURVEY A2

1. Questions for students. Demographics and perception of their education.

- **1.1. What is your age range? ***
☐ 21 and under ☐ 22 to 34 ☐ 35 to 44 ☐ 45 to 54 ☐ 55 to 64 ☐ 65 and Over ☐ Decline to respond
- **1.2. What is your gender? ***
☐ Male ☐ Female
- **1.3. What is the highest level of education your mother has completed? ***
☐ Primary school ☐ Some primary school ☐ Some secondary school ☐ Secondary school ☐ some high school ☐ High school graduate ☐ Some college ☐ Bachelor's degree ☐ Some post-graduate ☐ Master's degree ☐ Some doctorate studies ☐ Doctorate ☐ Other advanced degree ☐ No studies
- **1.4. What is the highest level of education your father has completed? ***
☐ Some primary school ☐ Primary school ☐ Some secondary school ☐ Secondary school ☐ some high school ☐ High school graduate ☐ Some college ☐ Bachelor's degree ☐ Some post-graduate ☐ Master's degree ☐ Some doctorate studies ☐ Doctorate ☐ Other advanced degree ☐ No studies
- **1.5. In what kind of institution did you receive your primary education? ***
 Please specify if it was public or private, if special or regular, if classroom education or open or distance education, private lessons etc. You can check several options.
☐ public ☐ private ☐ integrated education ☐ regular education ☐ special education ☐ classroom education ☐ open education ☐ private lessons ☐ distant education
- **1.6. In what kind of institution did you receive your secondary education? ***
 Please specify if it was public or private, if special or regular, if classroom education or open or distance education, private lessons etc. You can check several options.
☐ public ☐ private ☐ integrated education ☐ regular education ☐ special education ☐ classroom education ☐ open education ☐ private lessons ☐ distant education
- **1.7. In what kind of institution did you receive your high school education? ***
 Please specify if it was public or private, if special or regular, if classroom education or open or distance education, private lessons etc. You can check several options.
☐ public ☐ private ☐ integrated education ☐ regular education ☐ special education ☐ classroom education ☐ open education ☐ private lessons ☐ distant education
- **1.8. Rate your personal experience in your previous education? ***
☐ Excellent ☐ Very Good ☐ Good ☐ Fair ☐ Bad ☐ Very bad ☐ Terrible
- **1.9. What are the main reasons for your previous answer? Specify: ***
- **1.10. Are you part time or full time student? ***
☐ Full-time ☐ Part-time
- **1.11. If you are part-time student what are the reasons? Specify: ***
- **1.12. What is the main field of study of your current education? ***
☐ Education/Educational Administration(pedagogy, education science) ☐ Language Arts (e.g., language, literature or communication): ☐ Mathematics or Informatics: ☐ Second Language Teaching: ☐ Science (e.g., physics, chemistry, biology): ☐ Social studies (e.g., history, geography, psychology, sociology): ☐ Theology, Religious Studies or Philosophy: ☐ Arts (e.g., music, dance, drama, plastic arts): ☐ Physical Education: ☐ Public/Business Administration: ☐ Other...
- **1.13. Rate your personal experience in your current education? ***
☐ Excellent ☐ Very Good ☐ Good ☐ Fair ☐ Bad ☐ Very bad ☐ Terrible

• **1.14. What are the main reasons for your previous answer? Specify: ***

• **1.15. Do you consider yourself to have a disability or a special need? ***

☐ Yes ☐ No

• **1.16. If your previous answer was affirmative what kind of disability or special need you consider to have? ***

☐ speech disorders ☐ muteness ☐ Limited vision: ☐ Blindness: ☐ Hard-of-hearing: ☐ Deafness: ☐ Learning disabilities: ☐ LD with AD/ADHD: ☐ Neurological disorders (head injuries, seizure disorders Asperger's Syndrome): ☐ Psychological/Psychiatric disorders: ☐ Orthopedic/Mobility disabilities: ☐ Chronic illness: ☐ Gifted or talented students: ☐ Other... ☐

• **1.17. If your previous answer was 'other' please specify**

• **1.18. Have you ever been diagnosed with any kind of disability or special need? ***

☐ Yes ☐ No

• **1.19. If your previous answer was affirmative what kind of disability or special need you were diagnosed with? ***

☐ speech disorders ☐ muteness ☐ Limited vision: ☐ Blindness: ☐ Hard-of-hearing: ☐ Deafness: ☐ Learning disabilities: ☐ LD with AD/ADHD: ☐ Neurological disorders (head injuries, seizure disorders Asperger's Syndrome): ☐ Psychological/Psychiatric disorders: ☐ Orthopedic/Mobility disabilities: ☐ Chronic illness: ☐ Gifted or talented students: ☐ Other... ☐

• **1.20. If your previous answer was 'other' please specify the type of special need or disability.**

• **1.21. To what extent the lack or presence of resources for students with special needs or disabilities have affected your time taken for the completion of your studies?**

☐ not at all ☐ to a very small extent ☐ to a small extent ☐ to a moderate extent ☐ to a great extent ☐ to a very great extent ☐ I don't know ☐ I don't want to answer

2. Availability of services for students with special needs or disabilities.
Indicate what is the level of concern about different types of services available for students with disabilities at the university:

• **2.1. Assistive technology: ***

☐ Very Concerned ☐ Mildly Concerned ☐ Not a Concern Currently ☐ I don't know

• **2.2. Documentation ad hoc: ***

☐ Very Concerned ☐ Mildly Concerned ☐ Not a Concern Currently ☐ I don't know

• **2.3. Faculty cooperation/training : ***

☐ Very Concerned ☐ Mildly Concerned ☐ Not a Concern Currently ☐ I don't know

• **2.4. Finding/Hiring qualified disability support staff : ***

☐ Very Concerned ☐ Mildly Concerned ☐ Not a Concern Currently ☐ I don't know

• **2.5. Providing sign language interpreters ***

☐ Very Concerned ☐ Mildly Concerned ☐ Not a Concern Currently ☐ I don't know

• **2.6. Providing counseling for Students with psychiatric issues ***

☐ Very Concerned ☐ Mildly Concerned ☐ Not a Concern Currently ☐ I don't know

• **2.7. Mobility and accessibility in campus: ***

☐ Very Concerned ☐ Mildly Concerned ☐ Not a Concern Currently ☐ I don't know

• **2.8. Library special needs resources ***

☐ Very Concerned ☐ Mildly Concerned ☐ Not a Concern Currently ☐ I don't know

• **2.9. Transportation: ***

☐ Very Concerned ☐ Mildly Concerned ☐ Not a Concern Currently ☐ I don't know

• **2.10. - Have you ever been receiving any kind of counseling, institutional assistance, special services or lessons related to your special needs in this university? ***

☐ Yes ☐ No

• **2.11. If the case for what kind of disability or disabilities did the university provide you support for? ***

☐ speech disorders ☐ muteness ☐ Limited vision: ☐ Blindness: ☐ Hard-of-hearing: ☐ Deafness: ☐ Learning disabilities: ☐ LD with AD/ADHD: ☐ Neurological disorders (head injuries, seizure disorders Asperger's Syndrome): ☐ Psychological/Psychiatric disorders: ☐ Orthopedic/Mobility disabilities: ☐ Chronic illness: ☐ Gifted or talented students: ☐ Other...

- **2.12. If is the case specify what type of support did the university provide you to better cope with your special needs? ***

- **2.13. To what extent the assistance provided by the institution was useful to better cope with your special necessities? ***
☐ 0 = Not at all ☐ 1 = to a very small extent ☐ 2 = to some extent ☐ 3 = to a moderate extent ☐ 4 = to a great extent ☐ 5 = to a very great extent ☐ 00=I don't know ☐ I don't want to answer

- **2.14. Have you ever been receiving any kind of courses, lessons or information campaigns related or directed to the attention of the special needs of the students in this university?**

☐ Yes ☐ No ☐ I don't know ☐ I don't want to answer

3. Barriers

Rate the extent of relevance of the following barriers for an effective Inclusive education implementation at your university

- **3.1. Lack of knowledge about diversity and inclusion in education: ***
☐ 0 = Not at all ☐ 1 = to a very small extent ☐ 2 = to some extent ☐ 3 = to a moderate extent ☐ 4 = to a great extent ☐ 5 = to a very great extent ☐ 00=I don't know ☐ I don't want to answer
- **3.2. Inflexibility of the curriculum: ***
☐ 0 = Not at all ☐ 1 = to a very small extent ☐ 2 = to some extent ☐ 3 = to a moderate extent ☐ 4 = to a great extent ☐ 5 = to a very great extent ☐ 00=I don't know ☐ I don't want to answer
- **3.3. Insufficient preparation on inclusive education of teachers and education leaders: ***
☐ 0 = Not at all ☐ 1 = to a very small extent ☐ 2 = to some extent ☐ 3 = to a moderate extent ☐ 4 = to a great extent ☐ 5 = to a very great extent ☐ 00=I don't know ☐ I don't want to answer
- **3.4. Rigid and poor teaching methods ***
☐ 0 = Not at all ☐ 1 = to a very small extent ☐ 2 = to some extent ☐ 3 = to a moderate extent ☐ 4 = to a great extent ☐ 5 = to a very great extent ☐ 00=I don't know ☐ I don't want to answer
- **3.5. Inconvenient learning environment: ***
☐ 0 = Not at all ☐ 1 = to a very small extent ☐ 2 = to some extent ☐ 3 = to a moderate extent ☐ 4 = to a great extent ☐ 5 = to a very great extent ☐ 00=I don't know
- **3.6. Lack of special needs identification processes and inadequate assessment procedures ***
☐ 0 = Not at all ☐ 1 = to a very small extent ☐ 2 = to some extent ☐ 3 = to a moderate extent ☐ 4 = to a great extent ☐ 5 = to a very great extent ☐ 00=I don't know ☐ I don't want to answer
- **3.7. Lack of economic resources: ***
☐ 0 = Not at all ☐ 1 = to a very small extent ☐ 2 = to some extent ☐ 3 = to a moderate extent ☐ 4 = to a great extent ☐ 5 = to a very great extent ☐ 00=I don't know ☐ I don't want to answer
- **3.8. Mobility and accessibility in campus: ***
☐ 0 = Not at all ☐ 1 = to a very small extent ☐ 2 = to some extent ☐ 3 = to a moderate extent ☐ 4 = to a great extent ☐ 5 = to a very great extent ☐ 00=I don't know ☐ I don't want to answer
- **3.9. Transportation from home to university: ***
☐ 0 = Not at all ☐ 1 = to a very small extent ☐ 2 = to some extent ☐ 3 = to a moderate extent ☐ 4 = to a great extent ☐ 5 = to a very great extent ☐ 00=I don't know ☐ I don't want to answer
- **3.10. To what extent you perceive the accessibility to buildings, class rooms, labs, canteen and toilettes and infrastructure in general are adequate for students with disabilities at the campus? ***
☐ 0 = Not at all ☐ 1 = to a very small extent ☐ 2 = to some extent ☐ 3 = to a moderate extent ☐ 4 = to a great extent ☐ 5 = to a very great extent ☐ 00=I don't know ☐ I don't want to answer
- **3.11. To what extent did the lack or presence of special needs resources affected your academic performance? ***
☐ 0 = Not at all ☐ 1 = to a very small extent ☐ 2 = to some extent ☐ 3 = to a moderate extent ☐ 4 = to a great extent ☐ 5 = to a very great extent ☐ 00=I don't know ☐ I don't want to answer

- **3.12. To what extent did the lack or presence of special needs resources affected your time taken for completing your studies? ***
☐ 0 = Not at all ☐ 1 = to a very small extent ☐ 2 = to some extent ☐ 3 = to a moderate extent ☐ 4 = to a great extent ☐ 5 = to a very great extent ☐ 00=I don't know/no answer ☐ I don't want to answer

- **3.13. To what extent do you agree to share the educative environment with students having disabilities or special needs? ***
☐ not at all ☐ to a very small extent ☐ to a small extent ☐ to a moderate extent ☐ to a great extent ☐ to a very great extent ☐ I don't know ☐ I don't want to answer

4. Inclusive education policy awareness

- **4.1. To what extent are you aware of the policies for inclusive education in Mexico (at national level)? ***
☐ 0 = Not at all ☐ 1 = to a small extent ☐ 2 = to some extent ☐ 3 = to a moderate extent ☐ 4 = to a great extent ☐ 5 = to a very great extent ☐ 00=I don't know/no answer

- **4.2. To what extent are you familiarized with the policies towards inclusion at the university? ***
☐ 0 = Not at all ☐ 1 = to a small extent ☐ 2 = to some extent ☐ 3 = to a moderate extent ☐ 4 = to a great extent ☐ 5 = to a very great extent ☐ 00=I don't know/no answer

- **4.3. To what extent the national policies and goals towards inclusion are met in the university? ***
☐ 0 = Not at all ☐ 1 = to a small extent ☐ 2 = to some extent ☐ 3 = to a moderate extent ☐ 4 = to a great extent ☐ 5 = to a very great extent ☐ 00=I don't know/no answer

- **4.4. To what extent are you aware of the International policies towards inclusive education? ***
☐ 0 = Not at all ☐ 1 = to a small extent ☐ 2 = to some extent ☐ 3 = to a moderate extent ☐ 4 = to a great extent ☐ 5 = to a very great extent ☐ 00=I don't know/no answer

- **4.5. To what extent the international policies and goals towards inclusion are met in the university? ***
☐ 0 = Not at all ☐ 1 = to a small extent ☐ 2 = to some extent ☐ 3 = to a moderate extent ☐ 4 = to a great extent ☐ 5 = to a very great extent ☐ 00=I don't know/no answer

Appendix 2

template SNE SURVEY A1

1. Questionnaire for administrative and academic staff. Demographics and professional experience.

- **1.1. Mark your category. ***
☐ Administrative staff ☐ Academic personnel
- **1.2. What is your current position at the University? ***
- **1.3. What is your age range? ***
☐ 21 and under ☐ 22 to 34 ☐ 35 to 44 ☐ 45 to 54 ☐ 55 to 64 ☐ 65 and Over ☐ Decline to respond
- **1.4. What is your gender? ***
☐ Male ☐ Female
- **1.5. What is the highest level of education you have completed? ***
☐ Some primary school ☐ Primary school ☐ Some secondary school ☐ Secondary school ☐ Some high school ☐ High school graduate ☐ Some college ☐ Bachelor's degree ☐ Some post-graduate ☐ Master's degree ☐ Some doctorate studies ☐ Doctorate ☐ Other advanced degree
- **1.6. What was the main field of study of your highest level of education? ***
☐ School/Educational Administration: ☐ Language Arts (e.g., language, literature or communication): ☐ Mathematics or Informatics: ☐ Second Language Teaching: ☐ Science (e.g., physics, chemistry, biology): ☐ Social studies (e.g., history, geography, psychology, sociology): ☐ Theology, Religious Studies or Philosophy: ☐ Arts (e.g., music, dance, drama, plastic arts): ☐ Physical Education: ☐ Public/Business Administration: ☐ Other...
- **1.7. How many years of professional experience do you have in your entire career? ***
 Mark your range.
☐ 0-2 ☐ 3-5 ☐ 6-9 ☐ 10-14 ☐ 15-19 ☐ 20-24 ☐ 25+
- **1.8. How many years of professional experience do you have at this university in the current position? ***
☐ 0-2 ☐ 3-5 ☐ 6-9 ☐ 10-14 ☐ 15-19 ☐ 20-24 ☐ 25+
- **1.9. Do you have any personal or professional experience outside your working hours at the university of been giving assistance, providing service, special aid or lessons to any person with special needs or disabilities? ***
☐ yes ☐ No ☐ I don't know ☐ I don't want to answer
- **1.10. To how many people with disabilities or special needs have you been giving assistance outside the university setting? ***
☐ 1-2 persons ☐ 3-5 persons ☐ 6-8 persons ☐ 9+persons ☐ 0 persons
- **1.11. What kind of disability or special needs where that person or persons where having?: ***
☐ muteness ☐ speech disorders ☐ Limited vision: ☐ Blindness: ☐ Hard-of-hearing: ☐ Deafness: ☐ Learning disabilities: ☐ LD with AD/ADHD: ☐ Neurological disorders (head injuries, seizure disorders Asperger's Syndrome): ☐ Psychological/Psychiatric disorders: ☐ Orthopedic/Mobility disabilities: ☐ Chronic illness: ☐ Gifted or talented students: ☐ Other...
- **1.12. If your previous answer was 'other' please specify**
- **1.13. While on duty at this university have you ever been providing professional services or lessons to students with disabilities? ***
☐ Yes: ☐ No: ☐ I don't know
- **1.14. If your previous answer was affirmative please specify what kind of assistance did you provide to the students? Specify: ***
- **1.15. To how many students with disabilities or special needs have you been giving assistance at the university? ***

☐ 1-2 students
☐ 3-5 students
☐ 6-8 students
☐ 9+students
☐ 0 students

- 1.16. What kind of disability or special needs did the student or students where having: ***

☐ speech disorders
☐ muteness
☐ Limited vision:
☐ Blindness:
☐ Hard-of-hearing:
☐ Deafness:
☐ Learning disabilities:
☐ LD with AD/ADHD:
☐ Neurological disorders (head injuries, seizure disorders Asperger's Syndrome):
☐ Psychological/Psychiatric disorders:
☐ Orthopedic/Mobility disabilities:
☐ Chronic illness:
☐ Gifted or talented students:
☐ Other...
- 1.17. If your previous answer was 'other' please specify**

2. Availability of services for students with special needs or disabilities.
Indicate what is the level of concern about different types of services available for students with disabilities at the university:

- 2.1. Assistive technology: ***

☐ Very Concerned
☐ Mildly Concerned
☐ Not a Concern Currently
☐ I don't know
- 2.2. Documentation ad hoc: ***

☐ Very Concerned
☐ Mildly Concerned
☐ Not a Concern Currently
☐ I don't know
- 2.3. Faculty cooperation/training : ***

☐ Very Concerned
☐ Mildly Concerned
☐ Not a Concern Currently
☐ I don't know
- 2.4. Finding/Hiring qualified disability support staff : ***

☐ Very Concerned
☐ Mildly Concerned
☐ Not a Concern Currently
☐ I don't know
- 2.5. Providing sign language interpreters ***

☐ Very Concerned
☐ Mildly Concerned
☐ Not a Concern Currently
☐ I don't know
- 2.6. Providing counseling for Students with psychiatric issues ***

☐ Very Concerned
☐ Mildly Concerned
☐ Not a Concern Currently
☐ I don't know
- 2.7. Mobility and accessibility in campus: ***

☐ Very Concerned
☐ Mildly Concerned
☐ Not a Concern Currently
☐ I don't know
- 2.8. Library special needs resources ***

☐ Very Concerned
☐ Mildly Concerned
☐ Not a Concern Currently
☐ I don't know
- 2.9. Transportation(home-university-university-home) ***

☐ Very Concerned
☐ Mildly Concerned
☐ Not a Concern Currently
☐ I don't know
- 2.10. To what extent you perceive the accessibility to buildings, class rooms, labs, canteen and toilettes and infrastructure in general are adequate for students with disabilities or special needs at the campus? ***

☐ 0 = Not at all
☐ 1 = to a small extent
☐ 2 = to some extent
☐ 3 = to a moderate extent
☐ 4 = to a great extent
☐ 5 = to a very great extent
☐ 00=I don't know/no answer
- 2.11. To what extent do you agree to share the educative environment with students having disabilities or special needs? ***

☐ not at all
☐ to a very small extent
☐ to a small extent
☐ to a moderate extent
☐ to a great extent
☐ to a very great extent
☐ I don't know
☐ I don't want to answer

3. Professional Competence

- 3.1. Did you receive any training or institutional assistance from the University in order to better cope with the special necessities of the students? ***

☐ Yes
☐ No
- 3.2. If your previous answer was affirmative please specify what kind of training did you receive? ***

Specify:
- 3.3. To what extent the assistance provided by the institution was useful to better cope with the students with disabilities necessities? ***

☐ 0 = Not at all
☐ 1 = to a very small extent
☐ 2 = to a small extent
☐ 3 = to a moderate extent
☐ 4 = to a great extent
☐ 5 = to a very great extent
- 3.4. To what extent you have the competence to provide effective assistance to students with special needs in order to better cope with their academic endeavors?**

☐ 0 = Not at all
☐ 1 = to a small extent
☐ 2 = to some extent
☐ 3 = to a moderate extent
☐ 4 = to a great extent
☐ 5 = to a very great extent

4. Barriers
Rate the extent of relevance of the main barriers for an effective Inclusive education implementation at your university

• **4.1. Need of knowledge about diversity and inclusion in education: ***
☐ 0 = Not at all ☐ 1 = to a very small extent ☐ 2 = to a small extent ☐ 3 = to a moderate extent ☐ 4 = to a great extent ☐ 5 = to a very great extent ☐ 00=I don't know ☐ I don't want to answer

• **4.2. Need of flexibility of the curriculum: ***
☐ 0 = Not at all ☐ 1 = to a very small extent ☐ 2 = to some extent ☐ 3 = to a moderate extent ☐ 4 = to a great extent ☐ 5 = to a very great extent ☐ 00=I don't know ☐ I don't want to answer

• **4.3. Need of training on inclusive education of teachers and education leaders curriculum: ***
☐ 0 = Not at all ☐ 1 = to a very small extent ☐ 2 = to some extent ☐ 3 = to a moderate extent ☐ 4 = to a great extent ☐ 5 = to a very great extent ☐ 00=I don't know ☐ I don't want to answer

• **4.4. Rigid and poor teaching methods ***
☐ 0 = Not at all ☐ 1 = to a very small extent ☐ 2 = to some extent ☐ 3 = to a moderate extent ☐ 4 = to a great extent ☐ 5 = to a very great extent ☐ 00=I don't know ☐ I don't want to answer

• **4.5. Inconvenient learning environment: ***
☐ 0 = Not at all ☐ 1 = to a very small extent ☐ 2 = to some extent ☐ 3 = to a moderate extent ☐ 4 = to a great extent ☐ 5 = to a very great extent ☐ 00=I don't know ☐ I don't want to answer

• **4.6. Presence of special needs identification processes and adequate assessment procedures ***
☐ 0 = Not at all ☐ 1 = to a very small extent ☐ 2 = to some extent ☐ 3 = to a moderate extent ☐ 4 = to a great extent ☐ 5 = to a very great extent ☐ 00=I don't know ☐ I don't want to answer

• **4.7. Economic resources: ***
☐ 0 = Not at all ☐ 1 = to a very small extent ☐ 2 = to some extent ☐ 3 = to a moderate extent ☐ 4 = to a great extent ☐ 5 = to a very great extent ☐ 00=I don't know ☐ I don't want to answer

• **4.8. Mobility and accessibility in campus: ***
☐ 0 = Not at all ☐ 1 = to a very small extent ☐ 2 = to some extent ☐ 3 = to a moderate extent ☐ 4 = to a great extent ☐ 5 = to a very great extent ☐ 00=I don't know ☐ I don't want to answer

• **4.9. Transportation home-university-university-home: ***
☐ 0 = Not at all ☐ 1 = to a very small extent ☐ 2 = to some extent ☐ 3 = to a moderate extent ☐ 4 = to a great extent ☐ 5 = to a very great extent ☐ 00=I don't know ☐ I don't want to answer

5. Inclusive education policy awareness

• **5.1. To what extent are you aware of the policies for inclusive education in Mexico (at national level)? ***
☐ 0 = Not at all ☐ 1 = to a very small extent ☐ 2 = to some extent ☐ 3 = to a moderate extent ☐ 4 = to a great extent ☐ 5 = to a very great extent ☐ 00=I don't know ☐ I don't want to answer

• **5.2. To what extent are you familiarized with the policies towards inclusion at the university? ***
☐ 0 = Not at all ☐ 1 = to a very small extent ☐ 2 = to some extent ☐ 3 = to a moderate extent ☐ 4 = to a great extent ☐ 5 = to a very great extent ☐ 00=I don't know ☐ I don't want to answer

• **5.3. To what extent the national policies and goals towards inclusion are met in the university? ***
☐ 0 = Not at all ☐ 1 = to a very small extent ☐ 2 = to some extent ☐ 3 = to a moderate extent ☐ 4 = to a great extent ☐ 5 = to a very great extent ☐ 00=I don't know ☐ I don't want to answer

• **5.4. To what extent are you aware of the International policies towards inclusive education? ***
☐ 0 = Not at all ☐ 1 = to a small extent ☐ 2 = to some extent ☐ 3 = to a moderate extent ☐ 4 = to a great extent ☐ 5 = to a very great extent ☐ 00=I don't know/no answer

• **5.5. To what extent the international policies and goals towards inclusion are met in the university? ***
☐ 0 = Not at all ☐ 1 = to a very small extent ☐ 2 = to some extent ☐ 3 = to a moderate extent ☐ 4 = to a great extent ☐ 5 = to a very great extent ☐ 00=I don't know ☐ I don't want to answer

Appendix 3

Norsk samfunnsvitenskapelig datatjeneste AS
NORWEGIAN SOCIAL SCIENCE DATA SERVICES

NSD

Harald Hårfagres gate 2
N-5007 Bergen
Norway
Tel: +47-55 58 21 17
Fax: +47-55 58 96 50
nsd@nsd.uib.no
www.nsd.uib.no
Org nr. 985 321 884

Jorunn Buli-Holmberg
Institutt for spesialpedagogikk
Universitetet i Oslo
Postboks 1140 Blindern
0318 OSLO

Vår dato: 20.02.2012 Vår ref: 28844 / 3 / MSS Deres dato: Deres ref:

TILBAKEMELDING PÅ MELDING OM BEHANDLING AV PERSONOPPLYSNINGER

Vi viser til melding om behandling av personopplysninger, mottatt 26.11.2011. All nødvendig informasjon om prosjektet forelå i sin helhet 20.02.2012. Meldingen gjelder prosjektet:

28844	<i>Special Needs Education: The Mexican Special Needs Higher Education: One reality in one Global Context. Case study: UNAM (National Autonomous University of Mexico)</i>
Behandlingsansvarlig	Universitetet i Oslo, ved institusjonens øverste leder
Daglig ansvarlig	Jorunn Buli-Holmberg
Student	César Alejandro Chagoya Monroy

Personvernombudet har vurdert prosjektet, og finner at behandlingen av personopplysninger vil være regulert av § 7-27 i personopplysningsforskriften. Personvernombudet tilrår at prosjektet gjennomføres.

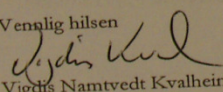
Personvernombudets tilråding forutsetter at prosjektet gjennomføres i tråd med opplysningene gitt i meldeskjemaet, korrespondanse med ombudet, eventuelle kommentarer samt personopplysningsloven og helseregisterloven med forskrifter. Behandlingen av personopplysninger kan settes i gang.

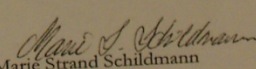
Det gjøres oppmerksom på at det skal gis ny melding dersom behandlingen endres i forhold til de opplysninger som ligger til grunn for personvernombudets vurdering. Endringsmeldinger gis via et eget skjema, http://www.nsd.uib.no/personvern/forsk_stud/skjema.html. Det skal også gis melding etter tre år dersom prosjektet fortsatt pågår. Meldinger skal skje skriftlig til ombudet.

Personvernombudet har lagt ut opplysninger om prosjektet i en offentlig database, <http://www.nsd.uib.no/personvern/prosjektoversikt.jsp>.

Personvernombudet vil ved prosjektets avslutning, 31.08.2012, rette en henvendelse angående status for behandlingen av personopplysninger.

Vennlig hilsen


Vigdis Namtvedt Kvalheim


Marie Strand Schildmann

Kontaktperson: Marie Strand Schildmann tlf: 55 58 31 52
Vedlegg: Prosjektvurdering
Kopi: César Alejandro Chagoya Monroy, Rolf E. Stenersens alle 9, HO-913, 0858 OSLO

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Appendix 4

Introductory Letter for participating respondents in the on-line survey research project

Public policy stressing a non discriminatory approach has becoming a worldwide major trend in democratized nations. Therefore the role of the modern state in the education sector is a determinant changing force when policy making -from developed countries to developing ones, from primary to tertiary education- in order to better cope with the challenge of providing education to a wider range of population -with disabilities and without- at the lowest possible cost without undermining the quality. Hence the necessity of dynamism on the public sector to shape and-reshape education Institutions and National behaviors that are on the need to adapt their educational practices and settings towards an inclusive environment as much as their own institutional capabilities allowed them in order to achieve change- thru modifications in the laws, norms and bylaws - .

All those issues upraised and drive my interest to make a study of the institutional behavior towards inclusiveness in education in the form of public policy coming from the Mexican state and how such policies are reflected in the form of legal mandates, rules and bylaws in a Public Higher Education Institution. The Mexican Public Higher Education Institution to be studied is The National Autonomous University of Mexico (UNAM); Along with the “ students with and without special needs administrative staff and academic personnel’s’ perception” about such institutional behavior towards inclusion by-product of policy implementation in the university.

The name of the project is: *Inclusive Education Perceptions, Practice and Policy A survey study: Students experiences and stakeholders perceptions of the practice of education policy for inclusion of students with special needs in Higher Education.* Hence these research will be conducted in order to better understand the dynamics of the institutional behavior of Universities when implementing public policies towards inclusiveness in higher education and the response of the students subject of the studied matter.

The contact information of the research supervisor: Jorun Buli- Holmberg, Associate Professor, Department of Special Needs Education, P.O.Box 1140 Blindern, NO-0318 Oslo . E-mail: j.b.holmberg@isp.uio.no

The Special Needs in Higher Education Survey is to be applied on-line to academic personnel, administrative staff, students and students with special needs or disabilities at the National Autonomous University of México(UNAM).

The final purpose of this survey is to gather data about the state of inclusive education for students with special needs at the UNAM.

The confidentiality of the data supplied by respondents is a prime concern to this project, therefore the data of survey respondents should not be made available to anyone outside those involved in the survey after the responses have been entered into the computer, by omitting the names and addresses of survey respondents from computer files used for analysis, while the anonymity of respondents will be observed thru all the stages of the data gathering process. Also the survey design will be presenting statistical tabulations using broad enough categories so that individual respondents cannot be singled out.

The participation of respondents in this survey would be consider voluntary having the right to withdraw themselves and the data provided for the purpose of this research at any stage. Therefore by responding this survey the participation consent is to be considered given *per se* by the respective respondent.

No personal data or private information as names, personal identity numbers or addresses will be collected, used or stored during or after the conclusion of the research.

Finally the results of the research would be used as part of the beforehand mentioned Master degree thesis project and will be available to any of the interested parts.

Sincerely yours, César Chagoya Monroy.

*NAVIGARE
NECESSE
EST*